

May 2013, Final



Cover Photo Key

Clockwise from top center:

- Ohio & Erie Canalway America's Byway (photo from Lawrence Township),
- SARTA CNG Bus at Gateway CNG Fueling Station (City of Canton),
- Stark Parks' Deer Creek Trail Bridge (Lexington Township),
- SARTA Bike Racks (fixed-route and paratransit buses),
- Hills and Dales Road (Jackson Township),
- SARTA Belden Village Station (Plain Township),
- AMTRAK Alliance Station (City of Alliance),
- Fulton Road/Stadium Park (City of Canton),
- Applegrove/Market Safety Improvements (Plain Township)

YEAR 2040 TRANSPORTATION PLAN FOR STARK COUNTY, OHIO

May 2013, Final

This report is the product of a study financed in part by the U.S. Department of Transportation, Federal Highway Administration, Federal Transit Administration and/or the Ohio Department of Transportation. The contents of this report reflect the views of the Stark County Area Transportation Study, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the U.S. Department of Transportation or others. This report does not constitute a standard, specification, or regulation.

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CHAPTER 1 - INTRODUCTION

The Stark County Area Transportation Study (SCATS) was formed in November of 1962 in order to prepare a long-range transportation plan that would meet the requirements of the Federal-Aid Highway Act of 1962. The act required the development of a comprehensive transportation plan coordinated with land use and other planning elements. The law also required a continuing transportation planning process where traffic and land use changes are monitored and periodic revisions to the Plan are made to keep abreast of changing conditions and maintain a 20 year planning horizon. The original SCATS Transportation Plan was adopted in 1971 with a target date of 1985. The table below documents the various Plans over the years:

Table 1-1- Plan Years

Plan Adoption Year	Horizon Year
1971	1985
1979	2000
1985	2010
1995	2010
1999	2020
2002	2030
2005	2030
2009	2030
2013	2040

SCATS is the Metropolitan Planning Organization (MPO) for Stark County and is designated by the Governor of Ohio as the entity responsible for transportation planning in Stark County. This document will extend the horizon year to 2040. The Transportation Plan is then incorporated as an element of the Stark County Regional Planning Commission (SCRPC) Comprehensive Plan.

SCATS Organization

Three committees and the staff comprise the organization of SCATS. They are the Policy Committee, the Technical Advisory Committee (TAC), and the SCRPC Citizens Advisory Council (CAC).

The Policy Committee

The Policy Committee is composed of county officials, mayors, a township representative, and representatives from Ohio Department of Transportation (ODOT), the Stark Area Regional Transit Authority (SARTA), the TAC Chair, and the CAC Vice-Chair. This committee is responsible for the basic non-technical policies, adopts the Transportation Plan and Transportation Improvement Program, and approves the budget.

The Technical Advisory Committee

The Policy Committee is assisted by the TAC, which reviews technical decisions and is composed of professionals in the fields of traffic, engineering, transportation, planning, and mass transit.

The Citizens Advisory Council

The third committee is the CAC. The SCATS Citizens Advisory Committee was formed in 1968. During 1976, a Citizens Advisory Council was formed to provide citizen participation for the SCATS program, as well as for the Stark County Regional Planning Commission (SCRPC). The CAC membership is open to all persons living or working in Stark County. Currently the CAC meets on a quarterly basis, usually on the fourth Wednesday of the month. Special meetings are also called, as needed, in order to satisfy public participation requirements.

SCATS Staff

The staff performs the day-to-day work of the study and prepares plans, reports and recommendations for review and adoption by the Policy Committee, TAC, and CAC. The staff also provides information as requested to the public.

Summary

The primary objective of SCATS, as the MPO for Stark County, is to develop the Transportation Plan and Transportation Improvement Program (TIP) for Stark County in accordance with federal regulations (this will be the final plan developed primarily under the planning requirements developed as a result of SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, signed into law by President Bush in 2005).

MAP-21, the Moving Ahead for Progress in the 21st Century Act, was signed into law by President Obama on July 6, 2012. This act funds surface transportation programs for fiscal years 2013 and 2014. Guidance on planning requirements pertaining to this act is under development and will shift the planning paradigm to include performance-based measures. A future update of this plan will incorporate MAP-21 planning requirements.

CHAPTER 2 – PLAN SUMMARY

Issues addressed in the 2040 Transportation Plan continue to be traffic congestion and delay identified by local officials and ease of mobility and accessibility as identified by Stark County residents. In addressing these issues SCATS plans for the continual improvement of a balanced multimodal system. This is accomplished by highway rehabilitation, safety improvements at intersections, signalization coordination, trip demand reduction through improved public transportation, pedestrian and bicycle transportation enhancements, and other projects. One of the objectives of the plan is to provide a balanced multimodal transportation system which is sensitive to the social, economic and environmental concerns of the citizens of the region.

Plan Components

The 2040 Transportation Plan includes three major components: highways, transit, and bicycle/pedestrian facilities. Projects will be described in three time periods: projects proposed to be completed by the year 2020 (TIP projects are included within this period), projects to 2030, and projects to 2040.

Highways

Freeways and Expressways- High speed, longer distance trips in and through Stark County and the surrounding region, will utilize the freeway and expressway system which includes I-77, US 30, and parts of US 62 and SR 21. The principal improvements planned for this system include extension of US 30 East from Trump Avenue to SR 9 in Columbiana County, and the extension of US 62 East from SR 225 to Salem.

Arterial highways- are high capacity urban roads taking traffic from local collector roads to freeways and expressways. The Plan proposes projects to improve traffic circulation in and around major traffic generators. These projects include improvements to the 12th Street Corridor through the City of Canton, including Mahoning Road; Everhard Road and Whipple Avenue intersection improvements, road widening, intersection and safety improvements on SR 43, SR 241, SR 619, and SR 800. Several safety improvements include the first roundabouts proposed for Stark County. Also proposed is an additional connection to the City of Canal Fulton from SR 21.

System Preservation- numerous bridge and repavement projects listed in the early portion of the plan (a number of which are in the 2014-2017 TIP) underscore the cost of system preservation. The reconstruction of the I-77/US 30 interchange is the most significant system preservation project listed in the plan.

Public Transit

The public transit system is a major factor in meeting the transportation needs of Stark County residents. The Stark Area Regional Transit Authority (SARTA), Stark County's public transit agency, has seen continual growth over the past years as infrastructure and other improvements encourage ridership. SARTA provided more than two million trips via conventional fixed-route bus service, paratransit demand-response service, special shuttles, and other activities in 2012. SARTA, as well as other for profit and non-profit transportation providers assist in providing a balanced transportation system available to all residents of Stark County.

The following general categories of transit capital improvements are in the Plan:

- Buses and Paratransit Vehicles Replacement- due to age, excessive mileage, wear and conversion to alternate fuels, primarily Compressed Natural Gas (CNG).
- Bus Rapid Transit (BRT) Corridors- in high ridership corridors improvements are being made to encourage and improve ridership. Bus pull-off lanes, shelters, and other pedestrian and bicycle facilities are being added to facilitate intermodal transportation. The Mahoning BRT Corridor is currently under development. Several other corridors (Tuscarawas Street and Whipple Avenue) may be planned once the current project is completed.
- Completion of improvements at the Gateway Facility – the installation of the CNG station has necessitated additional work to at SARTA’s Gateway Facility, including parking lot additions and HVAC changes due to CNG vehicles.
- Equipment and Preventive Maintenance – equipment purchases and capitalized preventive maintenance of SARTA vehicles and facilities.
- SARTA is the designated recipient to pass through sub-allocated funds for Job Access and Reverse Commute (5316) and Enhanced Mobility for Senior and Individuals with Disabilities (5310-which has been combined with 5317 by MAP-21). Various programs operated by SARTA and non-profit and for-profit transit providers derived from the locally-developed Coordinated Public Transit-Human Services Transportation Plan:
 - assisting veterans in their transportation needs;
 - assisting low and moderate income persons with purchasing a car or truck;
 - assisting returning ex-offenders with transportation to work or interviews;
 - transporting low-income dialysis patients not meeting Medicaid transport qualifications;
 - transporting excessive weight persons not able to use conventional handicap vehicles; and
 - the creation of a one-call/one click information/dispatch system (now being designed)

Bikeways and Pedestrian Facilities

Bicycle and pedestrian facilities are a valuable resource for short-distance transportation as well as for recreation and tourism. The demand for long-distance facilities, such as bike lanes, increases as sustainability, green living, and low impact lifestyles become more attractive to the public. Stark Parks has completed a number of bicycle and pedestrian facilities since the development of the Congressman Ralph Regula Towpath Trail in the Ohio and Erie National Heritage Canalway. These include major projects in the City of Canton, City of North Canton, Plain Township, and Lexington Township. Interconnections between many of these trails are under construction and included in the plan.

The City of Canton is implementing the first Complete Streets project in Stark County as part of the Mahoning BRT Corridor. Portions of this project are under construction on Walnut and Cherry Streets and will be completed this year. The City is also developing an extensive plan for bicycle lanes. These developments will serve as examples of this type of facility for Stark County. Stark Parks is in the process of updating the Stark County Trail and Greenway Plan, which contributes significantly to the bicycle and pedestrian section of this plan.

2040 Plan Listing

The SCATS 2040 Transportation Plan includes a financially constrained list of projects, which are recommended for implementation by the Year 2040. These projects are also shown in Map 2-1 and the following the listing. For ease of locating projects, this listing includes all road projects in the plan and bicycle/pedestrian facilities that are currently programmed in the TIP. Transit and long range bicycle and pedestrian projects are listed in separate sections

Table 2-1- 2040 Plan Listing

Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
Alliance sidewalks	Walnut Ave from Vine to Early Hill Park		\$ 255,000		TIP
Iron Horse Trail	Early Hill Park	Bike/Ped Trail	\$ 272,426		TIP
SR 93, Cherry/Locust	intersection	Intersection Widening	\$ 1,863,000	0.10	TIP
12th St Bridges	Between I-77 and Monument Dr		\$ 7,042,312		TIP
12th St NW	Monument Dr to Maple Ave	Roadway improvement and Bridge Rehab	\$ 16,506,725	1.96	TIP
3rd St Bridge	Over Nimishillen Creek	Bridge replacement	\$ 573,000		TIP
SR 153, Mahoning Road	Maple Ave to Grace Ave	Streetscape, Roadway and Intrsctn Impr.	\$ 8,144,000	1.00	TIP
SR 153, Mahoning Road	Grace Ave to Harmont Ave	Streetscape, Roadway and Intrsctn Impr.	\$ 5,936,550	0.70	TIP
Tuscarawas St W	Whipple Ave/Smith	Safety/Streetscape	\$ 422,980		TIP
Beeson St	At Freshley Ave	Roundabout	\$ 1,434,880	0.10	TIP
Everhard Rd & Whipple Ave	At intersection	Widen to 5 or more Lanes	\$ 7,887,500	0.22	TIP
Fohl St	At Shepler Church Ave	Roundabout	\$ 1,343,400	0.10	TIP
Guardrails	Various		\$ 375,000		TIP
Howenstine Dr Bridge	Over Nimishillen Creek	Bridge replacement	\$ 1,463,000		TIP
Paris Ave	At Meese Rd./ Easton St	Safety improvements	\$ 3,159,890	0.20	TIP
Rockhill Ave Bridge	Berlin Reservoir	Bridge replacement	\$ 1,416,276		TIP
Werner Church	At Applegrove St & Middlebranch Ave		\$ 6,422,890	0.80	TIP
Bike Crossing	Under Market Ave near Stone Crossing	Bike/Ped Trail	\$ 87,500		TIP
Culverts	Various		\$ 705,495		TIP
Culverts	Various		\$ 528,000		TIP
IR 77	at US 30	Bridge	\$ 18,250,000		TIP
Pavement Marking	Various	Pavement Marking	\$ 150,000		TIP

Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
SR 153 09.87	SR 153 09.87	Resurfacing with minor bridge work	\$ 1,390,500		TIP
SR 183 00.00	SR 183 00.00	Resurfacing with minor bridge work	\$ 925,000		TIP
SR 21 13.67	SR 21 13.67	Resurfacing with minor bridge work	\$ 7,931,000		TIP
SR 241 1.68/3.64	SR 241 1.68/3.64	Resurfacing with minor bridge work	\$ 1,460,000		TIP
SR 241 11.29	SR 241 11.29	Resurfacing with minor bridge work	\$ 1,240,000		TIP
SR 297 00.66	SR 297 00.66	Resurfacing	\$ 825,000		TIP
SR 43 17.24	SR 43 17.24	Resurfacing	\$ 2,065,000		TIP
SR 43, Market Ave	55th St to Applegrove St	Widen to 4 lanes	\$ 13,771,000	2.00	TIP
SR 44 13.69	SR 44 13.69	Resurfacing with minor bridge work	\$ 2,060,000		TIP
SR 619 02.59	from Kaufman Ave/Milan St	Widen to 3 lanes, intersection impr.	\$ 4,380,000		TIP
SR 619 04.66	SR 619 04.66	Resurfacing with minor bridge work	\$ 1,210,000		TIP
SR 627 00.15	SR 627 00.15	Resurfacing with minor bridge work	\$ 2,860,000		TIP
SR 687 01.19	SR 687 01.19	Resurfacing	\$ 936,000		TIP
SR 687 04.78	at Lakeside	Signal replacement	\$ 82,500		TIP
SR 800, Cleveland Ave	43rd St to I 77	Widen for TWLTL thru section;	\$ 7,860,000	1.60	TIP
SR 93 05.84	SR 93 05.84	Resurfacing with minor bridge work	\$ 1,525,000		TIP
US 30 06.03	US 30 06.03	Resurfacing	\$ 7,313,000		TIP
US 30 13.10	US 30 13.10	Minor rehab/Bridge work	\$ 25,300,000		TIP
US 30 19.16	US 30 19.16	Resurfacing	\$ 676,000		TIP
US 30/SR 183 31.88/5.88	US 30/SR 183 31.88/5.88	Resurfacing with minor bridge work	\$ 3,108,000		TIP
US 62 00.93	US 62 00.93	Resurfacing	\$ 832,000		TIP
US 62 18.70	US 62 18.70	Bridge work on six structures	\$ 4,815,000		TIP
US 62 18.82R	US 62 18.82R	Bridge	\$ 4,815,000		TIP
US 62 Various		Bridge work on six structures	\$ 5,067,000		TIP
Hoover Trail West	Dressler Bridge/N Canton YMCA	Multi-use path	\$ 887,583		TIP
O & E Canal Towpath Trail	Walnut Rd/Lincoln Way	Bike/Ped Trail	\$ 795,056		TIP
		Total for 2013-2017	\$ 188,369,463		

2020 Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
SR 93, Wabash Ave	4th St S to RR Overpass	Streetscape	\$ 846,720	0.30	2020
Portage St.	Lake O'Springs Ave to Frank Ave	Resurfacing	\$ 598,400	1.00	2020
Richville Dr	Nave St to Southway St	Minor widening resurfacing, shoulders, etc.	\$ 638,400	1.56	2020
Local System Preservation		System Preservation	\$ 8,580,000		2020
Amherst Rd	Amherst Rd	Improvements	\$ 2,640,000		2020
Hankins Rd	Hankins Rd	Realignment	\$ 1,320,000		2020
Hankins St	Wales Ave to Louisa Marie Ave	2 Lane Improvement	\$ 2,016,000	1.30	2020
Lincoln Way	Lincoln Way	Streetscape	\$ 5,060,000		2020
Lincoln Way E	Lincoln Way E	Widening	\$ 3,080,000		2020
Main Ave W	Main Ave W	Resurfacing	\$ 594,000		2020
Richville Dr.	Richville Dr.	Improvements	\$ 3,740,000		2020
SR 241, Wales Rd	Lincoln Way E to Hills & Dales Rd	2 lanes + Turn lane	\$ 4,950,000	1.49	2020
SR 241, Wales Rd	At Lake Ave	Upgrade intersection	\$ 1,650,000	0.10	2020
SR 241/SR 172	SR 241/SR 172	Signalization	\$ 3,080,000		2020
Walnut Rd	Southway St to 16th St	2 Lane improvement	\$ 495,000	0.25	2020
E Maple St	Walsh Ave	Streetscape	\$ 1,500,000	0.80	2020
Easthill St	300' east of S Main St	Bridge Replacement & Approach Imp.	\$ 1,250,000	0.10	2020
Portage St/Charlotte St	Lindy Lane/N Main St	Improvements	\$ 2,500,000	0.60	2020
Pittsburg Ave	Applegrove St to Shuffel St	Widen, turn lane, curb, storm	\$ 935,000	0.45	2020
W Maple St	Ream Ave/Main St	Widening, new signal	\$ 1,000,000	0.1	2020
ODOT Sys. Pres. 18-20		System Preservation	\$ 85,800,000		2020
SR 44, Ravenna Ave	At Mapleton St	Upgrade intersection	\$ 550,000	0.10	2020
SR 619 at McCallum Ave	Intersection	Construct Roundabout	\$ 968,000	0.10	2020
SR 687, Fulton Rd	0.28 miles E of SR 241 to Brunnerdale Ave	Widen to 5 lanes	\$ 4,032,000	1.00	2020
20th St NW	At Lakeside	Intersection Safety Improvement	\$ 275,000	0.10	2020
Various Safety Projects		Safety Projects	\$ 9,900,000		2020
		Total for 2018-2020	\$ 147,998,520		
		Available for 2018-2020	\$ 161,622,808		

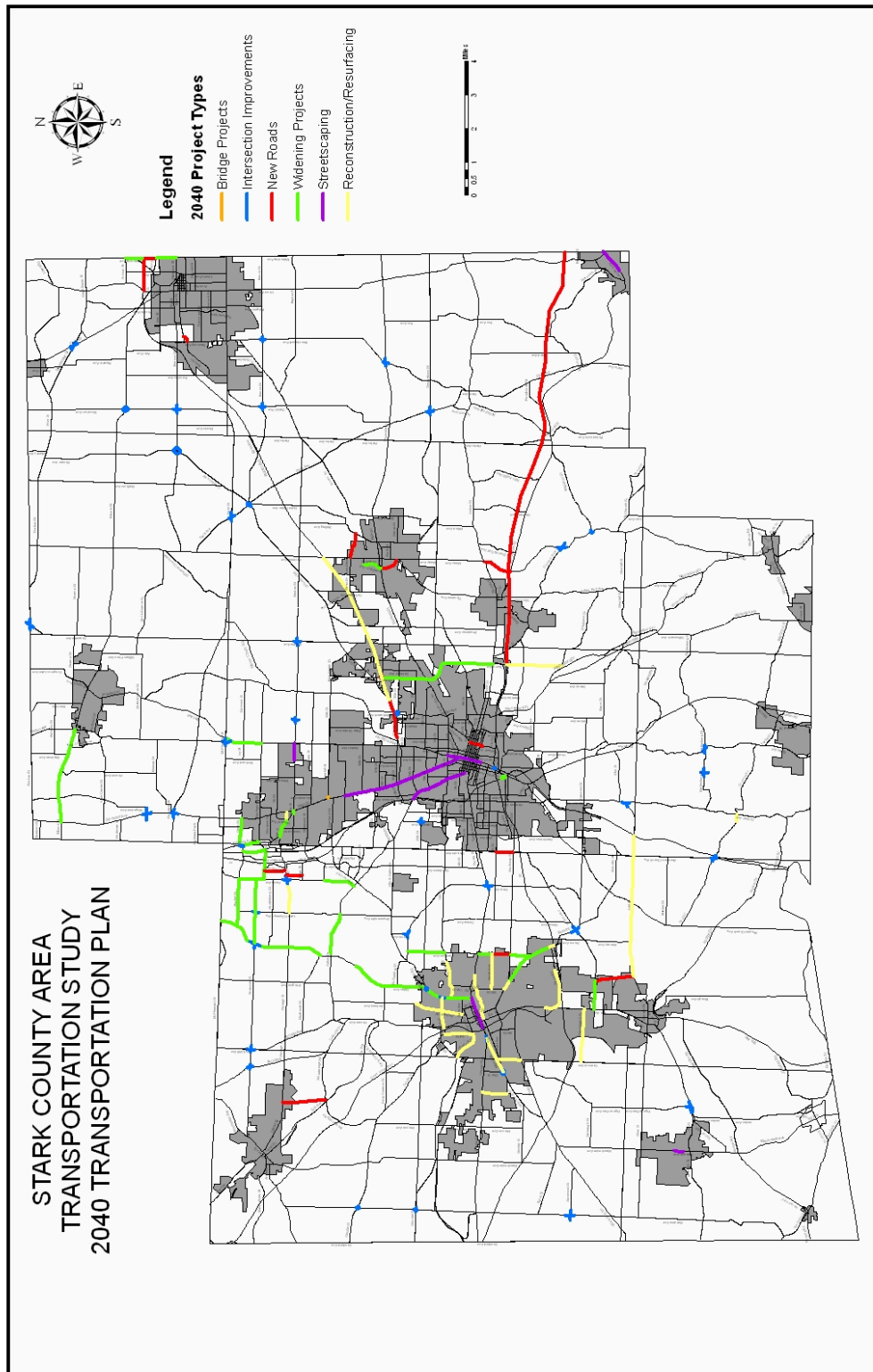
2030 Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
Main St Connector	Old Main St to New Main St at Sawburg	New 2-lane connector	\$ 1,240,000	0.30	2030
11th St S	at Market Ave	Roundabout	\$ 1,240,000		2030
Harmont Ave	SR 153 to US 62	Widen to 4 lanes	\$ 3,472,000	1.40	2030
The O'Jays/Madison	The O'Jays/Madison	Realignment	\$ 3,720,000		2030
30th St NE	At Harrisburg Rd	Intersection Improvement	\$ 6,200,000	0.10	2030
Alabama Ave	At Stanwood St	Intersection Improvement	\$ 1,040,000	0.10	2030
Alabama Ave.	at Orrville St.	Intersection	\$ 1,860,000		2030
Alabama Ave.	Wooster ST.	Intersection	\$ 2,480,000		2030
Applegrove St.	Whipple to Frank	Widen to 5 lanes	\$ 9,300,000		2030
Beech St	At Beechwood Ave	Intersection Improvement	\$ 910,000	0.10	2030
Beech St.	at Oakhill Rd.	Intersection Improve	\$ 2,480,000		2030
Cleveland Ave	at State St	Intersection	\$ 3,100,000		2030
Cleveland Ave.	at Wright Rd.	Intersection	\$ 2,976,000		2030
Columbus Rd	At Beeson St & Reeder Ave		\$ 1,240,000	0.10	2030
Columbus Rd	At Paris Ave	Intersection Improvement	\$ 1,400,000	0.10	2030
Easton St.	at Bentler	Intersection	\$ 1,860,000		2030
Easton St.	at Glenoak Service Ent	Intersection	\$ 3,720,000		2030
Fohl St	Navarre Rd to I-77	2 Lane improvement	\$ 6,799,000	5.23	2030
Frank Ave	Fulton Rd to University St	Widen to 3/4 lanes + turn lanes at ints	\$ 3,136,000	1.25	2030
Frank Ave.	Applegrove to Shuffel	Widen to 5 lanes	\$ 7,440,000		2030
Georgetown St	At Paris Ave	Intersection Improvement	\$ 1,860,000	0.10	2030
Jackson Ave	Richville Dr to Lincoln Way	2 Lane/RR Bridge	\$ 9,920,000	1.50	2030
Market Ave	At Mt Pleasant St	Intersection Safety Improvement	\$ 1,860,000	0.10	2030
Paris Ave.	at State St.	Intersection	\$ 2,480,000		2030
Perry Dr.	at Harris Ave.	Intersection	\$ 2,480,000		2030
Perry Dr.	at Tuscarawas St	Intersection and Widen	\$ 4,340,000		2030
Portage St	at Frank	Intersection Improvements	\$ 3,720,000		2030
Portage-Mega Connector	Portage St Mega St	New road	\$ 6,200,000		2030

2030 Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
Strausser	at SR 241	Intersection Improve	\$ 2,480,000		2030
Strausser St	At Lake O'Springs Ave	Intersection Improvement	\$ 1,680,000	0.10	2030
Strausser St	At High Mill Ave	Intersection improvement	\$ 2,480,000	0.10	2030
Strausser St	At SR 236	Intersection improvement	\$ 2,480,000	0.10	2030
Strausser St	Lake O Springs to SR 241	Roadway alignment	\$ 7,440,000		2030
Trump Ave	Lincoln St to SR 153	Widen to 4 lanes	\$ 8,450,000	2.30	2030
Whipple Ave	Southway St to 13th St	2-lane/RR bridge	\$ 9,920,000	0.52	2030
Whipple Ave	Applegrove St to Shuffel St	Widen to 5 lanes	\$ 3,720,000	0.56	2030
Local System Preservation		System Preservation	\$ 32,240,000		2030
Lake Ave NE	Lake Ave NE	Improvements	\$ 1,860,000		2030
Navarre Rd	SR 21 to 1 Mile E of SR 21	Widen to 3 lanes	\$ 2,600,000	1.00	2030
Nave St	Nave St	Improvements	\$ 2,604,000		2030
SR 172, Lincoln Way W	At Main St	Upgrade intersection	\$ 1,300,000	0.10	2030
Sterilite St Extension	Navarre Rd to Fohl St	New 2-lane connector	\$ 5,200,000	1.00	2030
Tremont Ave	at Main Ave	Roundabout	\$ 1,860,000		2030
Tremont Ave SE	Tremont Ave SE	Improvements	\$ 1,860,000		2030
Wales Rd	at Hills & Dales Rd	Roundabout	\$ 496,000		2030
Warmington St	Warmington St	Improvements	\$ 3,348,000		2030
I-77	US 30 Interchange	Interchange Safety & Capacity Impr.	TRAC	1.00	2030
ODOT System Preservation		System Preservation	\$ 322,400,000		2030
SR 241, Wales Ave	Hills&Dales Rd to Portage St	Widen to 4 lanes	\$ 11,079,400	5.50	2030
SR 241, Wales Ave	Portage St to Summit Co Line	Widen to 4 lanes	\$ 5,005,000	2.37	2030
SR 43, Market Ave	Applegrove St to Mt Pleasant St	Widen to 4 lanes	\$ 4,550,000	1.12	2030
SR 619, Edison St	Cleveland Ave to Kent Ave	Widen to 4 lanes	\$ 11,643,600	3.13	2030
US 30	Trump Ave to SR 44	New 4-Lane Freeway	TRAC	2.85	2030
US 30 Connector	SR 44 Interchange to SR 172 at Miday Ave	New 2-lane connector	\$ 4,960,000	1.00	2030
US 62	Columbus Rd to SR 44	Intersection Upgrading	TRAC	4.37	2030
Safety Projects		Safety Projects	\$ 37,200,000		2030
		Total for 2021-2030	\$ 587,329,000		
		Available for 2021-2030	\$ 594,000,419		

2040 Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
Cleveland Ave	9th St NW/51st NW	Streetscape	\$ 14,400,000		2040
Fulton Dr	4th St NW/I-77	Streetscape	\$ 8,640,000		2040
Market Ave	Market Ave	Streetscape	\$ 7,200,000		2040
Battlesburg	Ridge	Intersection	\$ 5,760,000		2040
Battlesburg	Briggle	Intersection	\$ 2,880,000		2040
Beechwood	SR 153	Intersection	\$ 3,600,000		2040
Beeson ST.	McCallum Ave.	Intersection	\$ 2,880,000		2040
Canal Fulton Connector	Butterbridge Rd to Locust St	New 2-lane connector	\$ 3,960,000	1.10	2040
Downing	Near Dueber	Landslide Repair	\$ 4,320,000		2040
Fohl	Dueber	Intersection	\$ 3,600,000		2040
Greenbower	SR 183	Intersection	\$ 5,760,000		2040
Mahoning Extension	Patterson Ave to Armour St	New 2-lane connector	\$ 5,688,000	1.00	2040
Mapleton	SR 44	Intersections	\$ 4,320,000		2040
Orchard View	SR 44	Intersection	\$ 3,600,000		2040
Orion St	Pittsburg/Cleveland	3-lane Widening	\$ 5,760,000		2040
Pittsburg	Shuffel/Orion	Intersection	\$ 7,200,000		2040
Pontius	Duquette	Intersection	\$ 2,880,000		2040
Richville Dr.	Navarre Rd.	Intersection	\$ 3,600,000		2040
Sherman Church	Haut	Intersection	\$ 7,200,000		2040
Shuffel St	Frank/SR 241	3-lane Widening	\$ 4,320,000		2040
Strausser St	Frank/SR 241	3-lane Widening	\$ 4,320,000		2040
Strip Ave	Portage/Applegrove	3-lane Extension	\$ 7,200,000		2040
Trump Ave	SR 43 to New US 30	2 Lanes / new connector	\$ 5,760,000	2.00	2040
US 62	Pigeon Run/Justus	Intersection	\$ 10,800,000		2040
Jackson Ave	12th St NW to Perry Dr	Widen to 3 lanes	\$ 2,880,000	2.00	2040
Local System Preservation			\$ 576,000		2040
Reno Drive	SR 44 to Nickel Plate Ave	New Facility	\$ 360,000	0.25	2040
SR 44 Bypass	SR 153 to Frana Clara St	2-lane bypass / RR Bridge	\$ 6,480,000	1.70	2040

2040 Project Name	Location	Type Work	Cost Year of Expenditure	Length	Plan Year
17th St SW	17th St SW	Improvements	\$ 2,160,000		2040
29th St NW	29th St NW	Improvements	\$ 979,200		2040
3rd St NW	3rd St NW	Improvements	\$ 1,440,000		2040
Cherry Rd NW	Cherry Rd NW	Improvements	\$ 1,800,000		2040
Harsh Ave SE	Harsh Ave SE	Improvements	\$ 1,080,000		2040
US 30, Lincoln Way	Bonnieview Ave to Columbiana Co Line	Streetscape	\$ 432,000	0.30	2040
Portage St	Pittsburg	3-lane Widening	\$ 5,760,000		2040
ODOT System Preservation			\$ 374,400,000		2040
US 30	SR 44 to SR 183	Super 2 lane	TRAC	8.00	2040
US 30**	SR 183 to East Rochester	Super 2 lane	TRAC	1.00	2040
US 62	Market Ave to Columbus Rd	Major Reconst / Access Control	TRAC	1.36	2040
US 62	At Harmont	Grade Separation	\$ 7,200,000	0.30	2040
US 62**	SR 225 to Salem	New 4-Lane Freeway	TRAC	1.00	2040
Safety Projects			\$ 43,200,000		2040
		Total for 2031-2040	\$ 584,395,200		
		Available for 2031-2040	\$ 692,445,993		

Map 2-1- 2040 Plan



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CHAPTER 3 – TRANSPORTATION PLANNING PROCESS

Transportation Goals, Objectives and Strategies

The first step in transportation planning is the development of goals and policies to guide the selection of projects and planning recommendations. The full Comprehensive Plan describes and lists the goals, objectives and strategies for the entire Plan. The transportation specific objectives and strategies are repeated below:

Objective 1- Adopt a “system preservation” policy towards Stark County roadways in conjunction with ODOT’s system preservation policy.

Strategies:

- A. Prioritize funding for system preservation;
- B. Implement Intelligent Transportation System strategies such as congestion management, safety planning, and mobility management.

Objective 2- Provide a multi-modal transportation system which includes various modal options, such as pedestrian access, bikeways, mass transit, rail, and air facilities.

Strategies:

- A. Evaluate and adjust SARTA’s routes to provide adequate transportation to and from suburbs and center cities;
- B. Support the objectives of the Coordinated Public Transit - Human Services Transportation Plan and SARTA’s continued curb to curb programs to serve transit dependent persons;
- C. Encourage the development and creation of scenic improvements, historic improvements, and pedestrian and bike trails;
- D. Structure new subdivisions to include pedestrian and bicycle facilities (sidewalks and trails), tying into the countywide trail system where possible;
- E. Provide for pedestrian friendly transportation systems where appropriate in response to new demographics and special needs.

Objective 3- Provide a congestion free transportation system.

Strategies:

- A. Work cooperatively with appropriate agencies to create and implement countywide access management regulations;
- B. Address existing congestion before building new roads in undeveloped areas.

Objective 4- Provide an efficient, safe and secure transportation system.

Strategies:

- A. Identify and target high crash locations for safety improvements;
- B. Implement intelligent transportation systems;
- C. Consult with appropriate agencies to provide for a secure transportation system

Objective 5- Provide an economically and environmentally sound transportation system.

Strategies:

- A. Develop fiscally constrained transportation plans and programs;
- B. Monitor and assess the cost effectiveness of transportation system components;

- C. Ensure projects are sensitive to social, economic and environmental effects;
- D. Encourage projects and programs that minimize the transportation system's impacts on air and water quality and noise levels.

Traffic Safety and Congestion Problem Areas

A second step in the planning process is the identification of deficiencies in the existing transportation system. The Traffic Congestion Management System (TCMS) is used to identify congestion deficiencies on the existing transportation system. Results of the latest TCMS analysis were published in the *2011 Congestion Management Process Report*. The report examined highway congestion based on three scenarios: existing traffic on the base highway system, future 2030 traffic on the base highway system and future 2030 traffic on the 2030 Plan adopted in 2005. The next update of the Congestion Management Process report will be based on the 2040 plan.

The base highway system includes all highway facilities that currently exist plus those facilities which are under construction or for which construction funding is committed in the immediate future. Congested locations include I-77 from SR 800 to Portage Street, US 62 between California Avenue and I-77, US 62 south of US 30, SR 241 from Massillon to SR 687, SR 172 in Canton and Perry Township, SR 800 south of Canton, US 62/SR 173 in Alliance, SR 93 in Canal Fulton, Perry Drive and Jackson Avenue in Perry Township, US 30 in and around East Canton, SR 619 in the Uniontown area, the Belden Village area, and various streets in and around downtown Canton.

The future congestion analysis on the future network showed many of the existing congested locations remain congested with the increased 2030 traffic volumes. In addition congestion has spread to include many locations near Portage Street. Locations showing improvements in levels of service include US 30 in East Canton, I-77 in Canton, SR-619 west of Hartville, Mount Pleasant Street, State Street in Alliance, Genoa Avenue and Perry Drive in Perry Township.

SCATS also gathers traffic crash records and publishes an annual traffic crash report identifying and ranking high hazard intersections. Information from these reports is presented to local officials and the general public, who then incorporate this data into their planning processes.

The *Stark County Crash Report 2011* and the *2011 Congestion Management Process Report* are available for review on the SCRPC/SCATS website at www.rpc.co.stark.oh.us/.

Transportation Security

SAFETEA-LU called for the security of the transportation system to be a stand-alone planning factor. This signaled an increase in importance from prior legislation in which security was coupled with safety in the same planning factor. The goal is to “increase the security of the transportation system for motorized and non-motorized users” and establish regional transportation policies that respond to security threats. Threat assessments of transportation facilities evaluate their vulnerabilities and risks in order to prioritize security improvements.

The Stark County Emergency Management Agency (EMA) is the agency that has the primary responsibility to address emergency preparedness in Stark County and coordinates with other governmental agencies responsible for the security of the region. This includes developing a planning process at the county level that establishes policies and procedures needed to prepare for, respond to, and mitigate the impacts of all types of natural or hostile disasters.

SCATS met with the Stark County EMA to discuss and review plans and policies already in place to deal with the transportation system in Stark County. This includes the Stark County Emergency Operations Plan. The primary Emergency Support Function is transportation. This chapter of the plan covers the mitigation, preparedness, response, and recovery from damage to land and air routes. The plan is based on the concept that appropriate local authorities will execute initial response. Mutual aid assistance between supporting organizations is implemented as specified by local agreement.

The Stark County Engineer, in coordination with Stark County's EMA Coordinator, has developed a Stark County Resource Manual. This manual identifies the source, location, and availability of earthmoving equipment, dump trucks, road graders, fuels, etc. and appropriate local contacts. These resources can be used to support response and recovery where needed. Homeland Security funds have been used to purchase directional signs, light towers and other equipment that can quickly be accessed by emergency officials and local road departments.

SCATS will work with the Stark County EMA, the Local Emergency Planning Committee (LEPC), SARTA, and others to coordinate the identification of security needs that can be addressed in the transportation planning process. These groups have plans in place for the protection of public assets, including the transportation system. SCATS will assist and consult the EMA in this process but will not take the lead in planning for a specific event. The group is in the process of completing a Hazardous Materials Commercial Flow Study. In coordination with State and Federal agencies, High Risk Loads will be monitored in and through the region.

SCATS has included the Stark County Emergency Management Agency and the Local Emergency Planning Committee on the list of coordinating agencies to be contacted for comment and public involvement with the Transportation Plan and Transportation Improvement Program.

Current training programs focus on ethanol transport, via both truck and rail. Mock disasters are staged on a regular basis, and usually involve some aspect of the transportation system. SARTA participates with local Fire departments in mock drills with buses being released from service. With both a weigh station and two large truck stops in the county, EMA encourages long haul truckers to participate in the "See Something, Say Something" campaign.

Critical Facilities

SCATS has identified critical facilities and transportation system elements in Stark County. The continued and uninterrupted operation of these facilities is necessary for the health, safety, and well being of the general public. The vulnerability of these facilities or systems is due to the potential for any of the following to occur: disruption to emergency response operations; disruption of governmental functions; and threats to the economy of the region. Although the

entire highway and railroad network could be considered vulnerable, the following locations have been identified as critical.

Table 3-1- Critical Facilities

Facility	Criteria
US 62 Bridge east of I-77	Major bridge structure and critical freeway interchange
I-77/US 30 interchange	Critical freeway interchange
I-77	NHS Route
US 30	NHS Route
US 62	NHS Route
SR 43	NHS Route
Norfolk Southern RR Junction in Alliance	Critical Junction of two major rail lines
Akron Canton Airport	Regional Airport

In the event of a local disaster, systems are currently in place to provide detour routes. ODOT's Freeway Incident Management System utilizes preplanned detours in freeway closure situations. The dynamic message signs and web cameras on I-77, placed as part of the Akron-Canton ITS architecture, are available to assist in evacuations and detours. Also, the Ohio Transportation Information System (OTIS) is designed to report major events that slow or detour traffic on Ohio highways.

Public Transit Security

The Stark Area Regional Transit Authority (SARTA) is the public transportation provider in Stark County. SARTA encourages riders to become part of the Transit Watch campaign. Transit Watch is a nationwide safety and security awareness program designed to encourage the active participation of transit passengers and employees in working together to maintain a safe transit environment. The campaign provides information and instructions to transit passengers and employees so that they know what to do and whom to contact in the event of an emergency in a transit setting. Transit Watch invites riders and employees to be the "eyes and ears" of their local transit system.

SARTA has also been cooperating with the Transportation Security Agency (TSA) and local law enforcement agencies on security sweeps of public transit facilities and buses.

SARTA has completed a confidential Security and Emergency Procedures reference guide. The plan deals with responses to emergencies, whether caused by natural or human events. It also outlines recovery after the event to restore SARTA to full function. In the event of incidents in Stark County, SARTA assists in evacuations, the transportation of personnel at the request of the Stark County EMA, and provides temporary shelter in buses where needed. SARTA's plan is also coordinated with the American Public Transportation Association and the Ohio Public Transit Association to initiate an emergency response network in the event of a disaster.

Pedestrian, Bicycle and Equestrian Facility Security

The Stark County Park District (Stark Parks) operates and maintains an ever-growing system of trails and greenways in the county. One of the volunteer programs the District operates is the Trailblazer Program where volunteers provide information and assistance to trail visitors. Stark Parks provides 24 hours of training in park and canal history, CPR and first aid, bicycle repairs, communication skills, and park regulations. Trailblazers are expected to provide at least 32 hours of service on the trails annually. The Park District provides Trailblazers with identifying T-shirts, ball caps, and jackets for use on the trail. Their equipment packs for patrolling include cell phones, first aid kits and bicycle repair kits.

Numerous law enforcement agencies in Stark County are now equipped with All Terrain Vehicles (ATV's). These ATV's allow for the patrol of the trail system as well as ability to quickly respond to emergency calls on the trail system.

Demographic Projections

Transportation planning relies on future population, employment and land use projections. The distribution of future population, employment and land use is as important as, or more important than, the total numbers. Population and employment distributions affect the number and lengths of future trips. Transportation also affects the distributions. Where people will live depends in part on access to jobs. Where the jobs are located will be determined to some extent by accessibility to major highways. Thus, most new regional growth in Stark County is projected to take place along major transportation corridors, which is evidence of a strong population / employment / transportation / land use connection.

Table 3-2- Population Projections

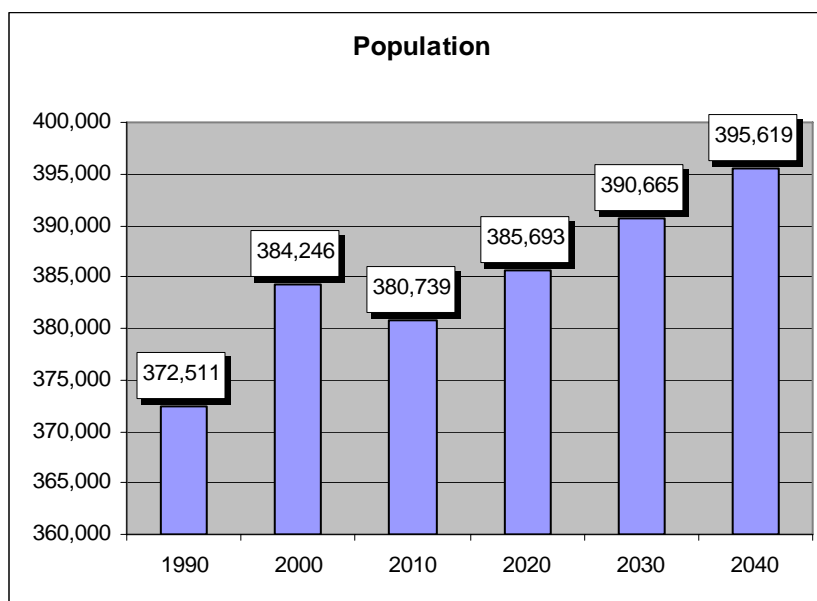


Table 3-2 shows the existing and future totals for population. The populations shown in the table were derived by first calculating the least-squares, linear-regression value for 2040 based on the

known populations for 1990, 2000, and 2010. The values for 2020 and 2030 were then interpolated assuming a straight line between the 2010 population and the 2040 population.

Table 3-3- Population under 18 Projections

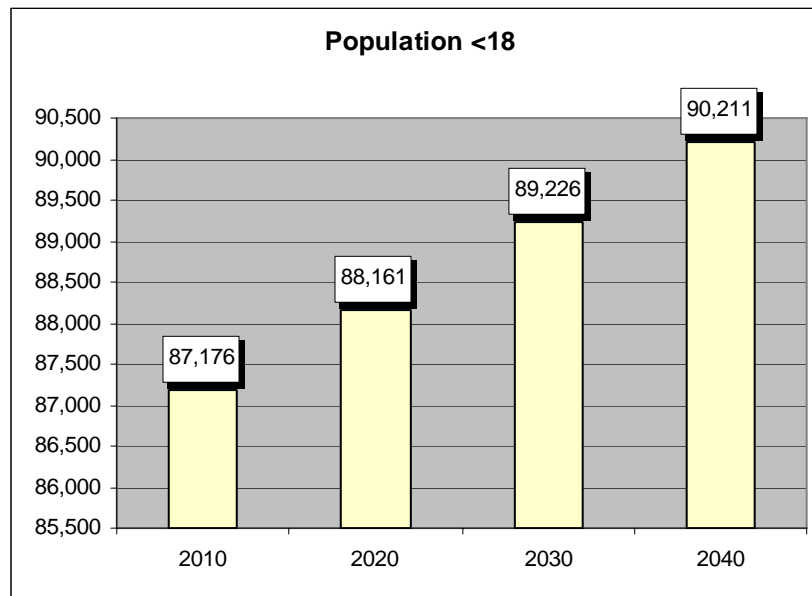


Table 3-3 shows the projections for the portion of the population under age 18. These values were derived by simply assuming that the percentage of the population under age 18 in 2010 would stay constant throughout the time period of the long-range plan.

Table 3-4- Labor Force Projections

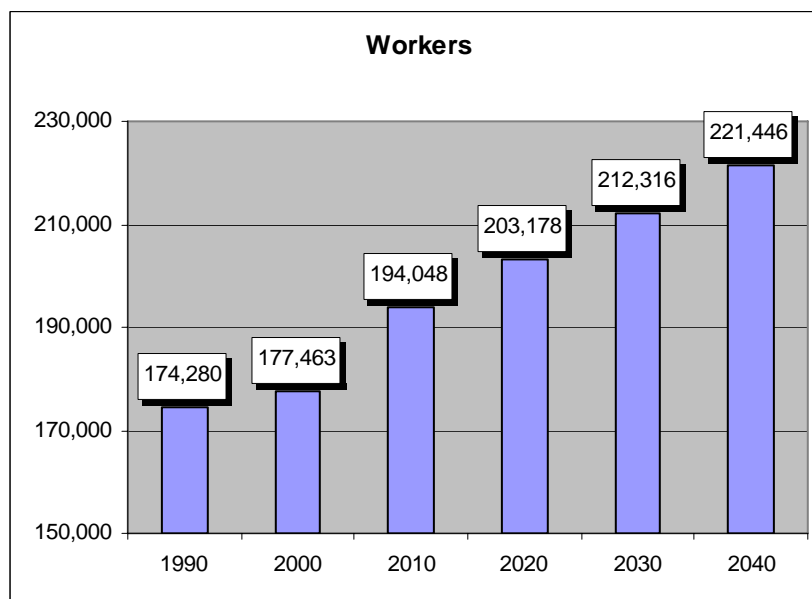


Table 3-4 shows projections for the number of workers living in the Stark County planning area. The future labor force was calculated using the same method as for population: the 2040 labor

force was calculated using the least-squares method, and the 2020 and 2030 values were calculated using a straight-line interpolation.

Table 3-5- Number of Vehicles Projections

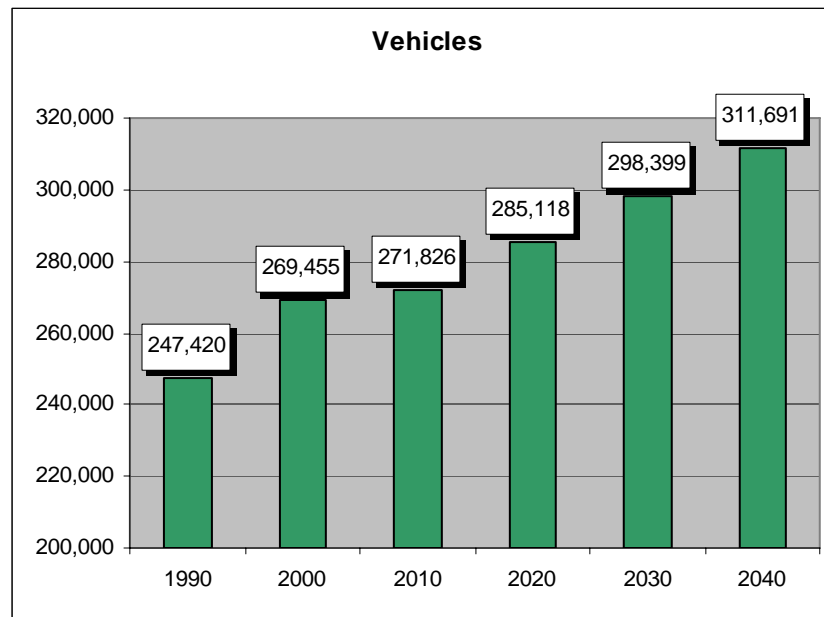


Table 3-5 shows projections for the total number of vehicles in the planning area. These values were also calculated using the least-squares method for 2040 and then interpolating the 2020 and 2030 values.

Table 3-6- Number of Households Projections

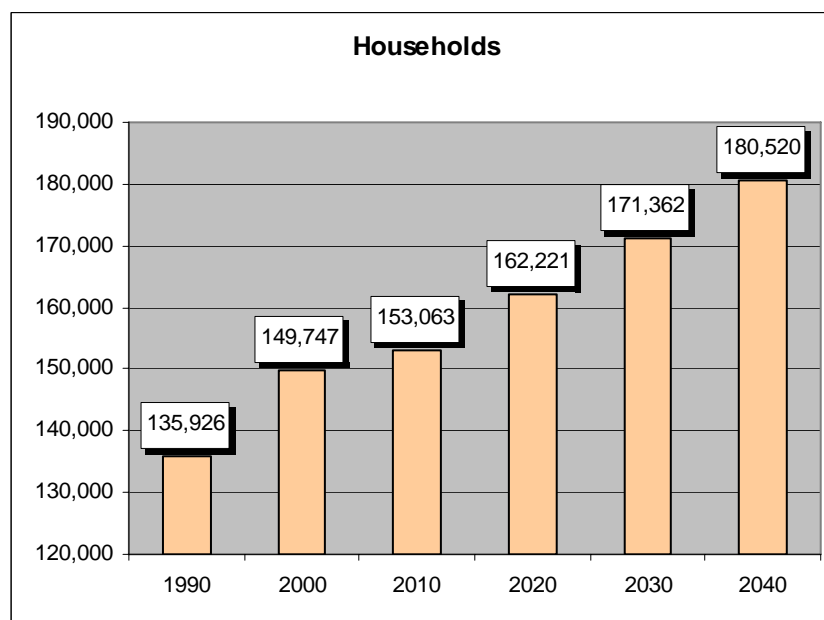


Table 3-6 shows the projections for the total number of households in the Stark County planning area. As with the population, labor force, and vehicles these values were calculated using the least-squares method for 2040 and interpolation for 2020 and 2030.

Table 3-7- Employment Projections

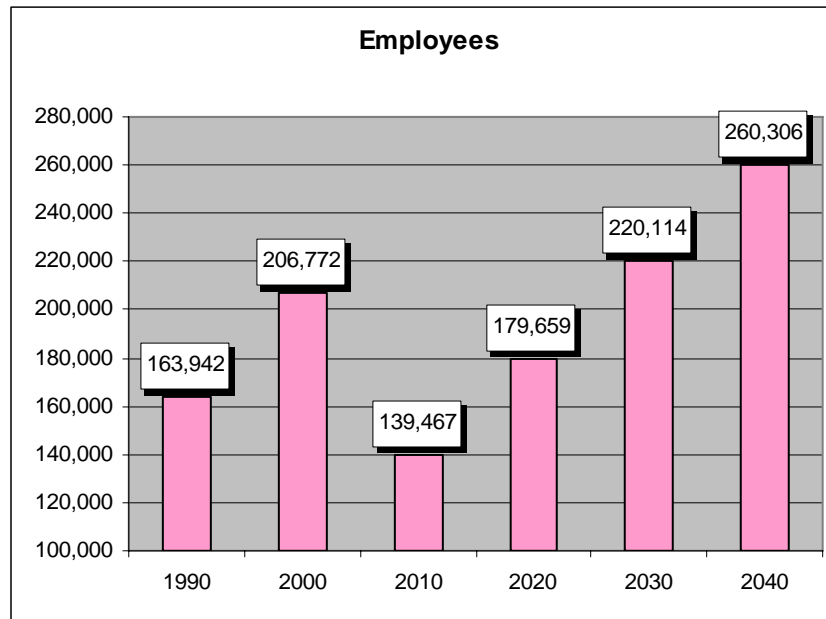


Table 3-7 shows the future projections for the number of persons working in the Stark County planning area. 2010 Employment was estimated using data from the Quarterly Census of Employment and Wages. Using the least-squares method to project future employment would result in decreasing employment throughout the planning period because of the large drop in employment between 2000 and 2010. Based on past employment trends, this doesn't appear to be realistic. Therefore, future employment was estimated using a constant growth rate. The growth rate used was 2.1%, which was the same growth rate used in the fiscal forecast.

Traffic Zones

The Land Use Plan provides the overall framework for the Transportation Plan but does not include the detail necessary for travel forecasting purposes. To forecast travel, the transportation planning models require detailed characteristics for small areas. For this reason, the SCATS planning area is divided into 690 traffic zones. Two criteria were used to divide the area into zones:

- Zones should produce a similar amount of activity so similar amounts of trips would be produced.
- The activity in each zone should be relatively homogeneous and special zones should be created for special uses such as hospitals, colleges, shopping centers and major industrial plants.

Other considerations in creating traffic zones include not allowing travel barriers such as rivers and railroads to cross zones and having zone boundaries that do not cross census tracts to make obtaining population and employment data easier.

For each of the traffic zones, key demographics are sub-allocated to the traffic zone level. The following data was sub-allocated to the zone level:

Table 3-8- SCATS Independent Variables

Residential	Employment	Special
Population / Population < 18	NAICS categories*	School Enrollment
Households		College Enrollment
Labor Force		Hotel Rooms
Vehicles Available		Average Parking Cost
Median Household Income		

*These data sets are referred to as independent variables because they are used as input data in the trip generation models. *NAICS stands for North American Industrial Classification System.*

Travel Forecasting

The next step in the development of the plan is forecasting future travel. This involves the use of the following three mathematical models:

Trip Generation (how many trips?)

Trip Generation is the process used to forecast the number of trips generated by each traffic zone. Using the data from the 1965 Origin and Destination survey as a base, equations were developed that relate numbers of trips generated to the population, employment and land use data. In 1997, the trip generation equations were revised based upon a model calibration using 1990 as a base year. Six trip types are used in the process:

- Home-based work trips
- Home-based shopping trips
- Home-based other trips
- Non-home based trips
- Truck trips
- Internal-external trips

Trips originating outside of Stark County are forecast separately. The outputs of the trip generation equations are trip ends, either productions or attractions. For instance, residential zones produce work trip productions based on variables like the number of workers living in a zone. Industrial zones produce work trip attractions based on the employment in the zone. By using these equations and the appropriate forecast data, the number of future trip ends generated by each traffic zone is calculated.

Trip Distribution (where are the trips going?)

Trip Distribution is the process that distributes trips produced in each zone to other zones with trip attractions. This is accomplished using a “gravity” model, which distributes trips in direct proportion to the relative attractiveness of zones and in inverse proportion to the square of the time distance between them. The result of the model is a current or future trip table, which shows how many trips go from each zone to every other zone.

Traffic Assignment (what route do the trips take?)

Traffic Assignment is the process whereby the trip table is assigned by a computer to a given highway network. The highway network includes all major highway facilities. Each link in the network has a distance and speed coded. The computer assigns the trips between two zones to the highway links that form the minimum time path between those two zones. Two types of traffic assignment are used, "free" and "capacity-restraint." The "free" assignment assigns all trips to the minimum time path while the "capacity-restraint" assignment diverts some trips to alternate paths if the assigned volume reaches the capacity of the links on the minimum time path. The result of the models is a forecast of traffic on each link of a highway network. In 1997, the SCATS travel models were converted to a PC based model called TRANPLAN. In 2006, the SCATS travel models were converted to a CUBE model.

Future traffic is assigned to alternate networks to produce future traffic volumes and evaluate the effectiveness of the projects. The models also provide data for calculating the future air-quality impacts and the energy consumption of each alternative. Finally, the models provide the basic design data used to determine the number of lanes and other features of future highways.

Transportation Plan Development

The SCATS Transportation Plan draws on many different sources. Important sources included ODOT's *Access Ohio 2400 Statewide Transportation Plan*, the Governor's *Jobs and Progress Plan*, and the ODOT STIP. Other plans and studies used as input into the Plan include the Transportation Improvement Program, local communities' capital improvement reports, the Transit Development Plan, and the Stark County Park District Trail and Greenway Plan. Comments from local officials, transportation planners, ODOT staff, local citizen's groups, and members of the public also provide crucial input.

Major Investment Studies

Another Federal transportation-planning requirement is the creation of major investment studies (MIS) for metropolitan transportation corridors. The MIS is undertaken to refine the Transportation Plan and to assist SCATS and other participating agencies in the decision making process and in the design concept and scope of the investment. The MIS is a multimodal analysis to clarify the purpose and need for the project and to identify the appropriate mode(s) to resolve the need.

Major metropolitan transportation investments are defined as: "projects which cost ODOT more than \$5 million and which do one or more of the following: increase mobility, provide connectivity, increase the accessibility of a region for economic development, increase the capacity of a transportation facility, or reduce congestion. This definition includes all new interchanges proposed for economic development or local access, any significant interchange modification, bypasses, general purpose lane additions, intermodal facilities, major transit facilities, or passenger rail facilities."

Several projects in the Transportation Plan meet this definition. They include the extension of US 30 from Trump Avenue to SR 11, the completion of US 62 from the City of Alliance to Salem, and the US30/IR77 interchange. MIS studies have been completed for the US 30 and US 62 projects.

CHAPTER 4 – HIGHWAY PLAN

This chapter presents the Highway Plan for Stark County listed by major corridor and geographic region in order to assist in the visualization of projects. The major highway corridors include I-77, US 30, and US 62. The different geographic regions were derived from those used in the Comprehensive/Transportation Plan, the study developed in conjunction with the Stark County Regional Planning Commission.

I-77 Corridor

I-77 is a National Highway corridor from the Summit County line to US 30. It is also a connection for Maritime freight between the Ohio River and Lake Erie. South of US 30 it is a State Primary Highway Corridor.

The only project for this corridor is the reconstruction of the I-77/US 30 interchange.

Table 4-1- I-77 Corridor Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
I-77	At US 30 Interchange	Interchange Safety & Capacity Improvements	49,600,000	1.00	2030

US 30 Corridor

US 30 is identified as a Statewide Primary Highway Corridor from I-77 to the Wayne County line. ODOT has recommended improvements to all segments of US 30 in the state which are not already 4-lane, fully-access-controlled freeways. Within Stark County this US 30 would be from Trump Avenue to the Columbiana County line.

The traffic assignments, along with consideration of other factors including economic development, system continuity, and overwhelming community support, justify improvements to US 30. However, completing US 30 as a freeway from Trump Avenue to SR 9 in Columbiana County would be prohibitively expensive. Therefore, SCATS is recommending that US 30 be built as a freeway to SR 44 and then be extended as a Super 2 lane road to the county line. The Super 2 concept allows for staged construction and eventual expansion to a full freeway.

Table 4-2- US 30 Corridor Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
US 30 06.03	US 30 06.03	Resurfacing	7,313,000		TIP
US 30 13.10	US 30 13.10	Minor rehab/Bridge work	25,300,000		TIP
US 30 19.16	US 30 19.16	Resurfacing	676,000		TIP
US 30/SR 183 31.88/5.88	US 30/SR 183 31.88/5.88	Resurfacing with minor bridge work	3,108,000		TIP
US 30	Trump Ave to SR 44	New 4-Lane Freeway	71,920,000	2.85	2030

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
US 30	SR 183 to East Rochester	New 2-Lane Connector	6,192,000	1.00	2040
US 30	SR 44 to SR 183	Super 2-Lane	69,984,000	8.00	2040

US 62 Corridor

The US 62 corridor runs from I-77 to the Mahoning County line just east of Alliance and is identified as a Statewide Secondary Highway Corridor by OODT. A planning study of the section of US 62 between Market Avenue and SR 44 was recently completed. The study generated a number of scenarios for safety improvements within this corridor. No projects have been officially recommended from this study at this time. Original SCATS plan recommendations, as well as several preliminary recommendations from the safety study are included below:

- From Market Avenue to Columbus Road, SCATS is recommending a major upgrading on the existing alignment and elimination of driveway and minor cross street access. Access to US 62 would be limited to Maple Avenue, Rowland Avenue, or St. Elmo Avenue.
- At Harmont Avenue, SCATS recommends bridging Harmont Avenue over US 62. This intersection is usually at the top of the SCATS intersection crash hazard ratings. Access to and from US 62 would be provided by ramps connecting to Lesh Avenue and the service road parallel to US 62 on the south. With innovative design, this project could be built within the existing right of way limits. Lower cost alternatives derived from the safety study include changes to access and/or rerouting the parallel service roads at this intersection. Offset turn lanes have been completed, eliminating some crashes.
- From Columbus Road to SR 44 SCATS options include terminating the Columbus Road intersection and realigning the Middlebranch intersection. Minor changes to improve circulation are proposed at the California Avenue intersection.
- Between SR 44 and the end of new US 62 at SR 225, SCATS is not recommending any improvements. The freeway portion of US 62 ends at SR 225. SCATS recommendation is the extension of US 62 as a freeway to Salem.

Table 4-3- US 62 Corridor Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
US 62 00.93	US 62 00.93	Resurfacing	832,000		TIP
US 62 18.70	US 62 18.70	Bridge work on six structures	4,815,000		TIP
US 62 18.82R	US 62 18.82R	Bridge	4,815,000		TIP
US 62 Various		Bridge work on six structures	5,067,000		TIP
US 62	Columbus Rd to SR 44	Intersection Upgrading	23,560,000	4.37	2030
US 62	At Harmont	Grade Separation	7,200,000	0.30	2040

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
US 62**	SR 225 to Salem	New 4-Lane Freeway	11,520,000	1.00	2040
US 62	Market to Columbus Rd	Major Reconst / Access Control	21,600,000	1.36	2040

Alliance/Marlington Planning Areas

The major project in this area is the extension of US 62 to Salem described earlier in the US-62-corridor section. To reduce truck traffic and improve access to new US 62 on the East side, SCATS is recommending that Mahoning Avenue be extended across the river to Armour Road. This project will also tie into proposed industrial development in Lexington Township.

On the west side of Alliance SCATS recommends connecting the end of Main Street at Sawburg Avenue to the new section of West Main Street in the industrial park. This project will eliminate the existing jog and provide better access to the Carnation Mall area from downtown Alliance. One bridge replacement, four intersection improvements, three roundabouts, and two trails are also included in the Plan.

Table 4-4- Alliance/Marlington Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Alliance Sidewalks	Walnut Ave from Vine to Early Hill Park	Trail and Sidewalks	255,000		TIP
Iron Horse Trail	Early Hill Park	Bike/ped trail	272,426		TIP
SR 619, Edison St	At McCallum Ave	Construct Roundabout	968,000	0.10	TIP
Main St Connector	Old Main St to New Main St at Sawburg	New 2-Lane Connector	1,240,000	0.30	2030
Rockhill Ave Bridge	Berlin Reservoir	Bridge replacement	1,416,276		TIP
Columbus Rd, CR 67A	At Beeson St & Reeder Ave	Construct Roundabout	1,240,000	0.10	2030
Beech St, CR 95	At Beechwood Ave	Intersection Improvement	910,000	0.10	2030
Beeson St, CR 41	At Freshley Ave	Construct Roundabout	1,434,880	0.10	TIP
Mahoning Ave, TR 1 Extension	Patterson Ave to Armour St	New 2-Lane Connector	5,688,000	1.00	2040
Beechwood	SR 153	Intersection	3,600,000		2040
Beeson St.	McCallum Ave.	Intersection	2,880,000		2040
Greenbower	SR 183	Intersection	5,760,000		2040

Canal Fulton/Lawrence Planning Area

The major highway facility in this area is SR 21. No major improvements are planned for SR 21. A new connector is proposed to connect Locust Street in Canal Fulton to Butterbridge Road at Erie Avenue. This will provide better access to the Locust St commercial area from SR 21. Three intersection improvements are also planned in this area.

Table 4-5- Canal Fulton/Lawrence Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
SR 93, Cherry St	At Locust St	Intersection Improvement	1,863,000	0.10	TIP
Strausser St, CR 131	At High Mill Ave	Intersection Improvement	2,480,000	0.10	2030
Strausser St, CR 131	At SR 236	Intersection Improvement	2,480,000	0.10	2030
Canal Fulton Connector	Butterbridge to Locust St	New 2-Lane Connector	3,960,000	1.10	2040

Canton/Canton Township Planning Area

Major highways in this planning area include I-77, US 30 and US 62. Projects for these facilities are detailed in the corridor descriptions.

Major work in this area includes the 12th Street Corridor in the City of Canton (including portions of Mahoning Road). This project will include intersection improvements, signalization coordination, and complete-street components such as bike lanes and improved transit stops (as part of the Mahoning BRT project). Three projects are recommended in the Trump Avenue corridor. At the southern end, Trump is recommended to be connected to SR 43, improving its connection to the US 30 interchange. North of Lincoln Street SCATS is recommending Trump be widened to four lanes to SR 153. From SR 153 to US 62, Harmont Avenue is recommended to be widened to four lanes. These improvements would be a lower cost alternative to a limited access connection between US 30 and US 62.

In the southern part of Canton, SCATS is recommending a realignment to connect Madison Avenue with the O’Jays Boulevard. This would provide an alternative north-south route through the city, diverting traffic away from the new bike lanes on Cherry Avenue and Walnut Avenue.

Southwest of Canton, at the Canton Township/Perry Township border, SCATS is recommending a new connector with a railroad grade separation to link Whipple Avenue to Southway Street.

In Canton Township, ODOT will be adding a two way left turn lane to SR 800 and SR 43. Other projects will replace bridges, resurface roads and improve intersections in the planning area.

Table 4-6- Canton/Canton Twp Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
12th St NW	Monument to Maple	Roadway & Bridge Rehab	16,506,725	1.96	TIP
12th St Bridges	I-77 to Monument	Bridge Replacement	7,042,312		TIP
3rd St Bridge	Over Nimishillen Creek	Bridge replacement	573,000		TIP
SR 153, Mahoning Road	Maple Ave to Grace Ave	Streetscape, Roadway and Intersection Improvement	8,144,000	1.00	TIP
SR 153, Mahoning Road	Grace Ave to Harmont Ave	Streetscape, Roadway and Intersection Improvement	5,936,550	0.70	TIP
Tuscarawas St W	Whipple Ave/Smith	Safety/Streetscape	422,980		TIP
SR 800, Cleveland Ave	43rd St to I 77	Widen for TWLTL thru section;	7,860,000	1.60	TIP
Howenstine Dr Bridge	Over Nimishillen Creek	Bridge replacement	\$ 1,463,000		TIP
30th St NE	At Harrisburg	Intersection Improvement	1,680,000	0.10	2020
Harmont Ave, CR 170	SR 153 to US 62	Widen to 4 lanes	3,472,000	1.40	2030
SR 153, Mahoning Rd	Maple Ave to Harmont Ave	Roadway & Intersection Improvements	20,160,000	1.70	2020
Whipple Ave, TR 219	Southway St to 13th St SW	New 2-Lane Road/RR Bridge	9,920,000	0.52	2030
Trump Ave, CR 170	SR 43 to New US 30	2-Lane Improvement, new road	5,760,000	2.00	2040
Trump Ave, CR 170	Lincoln St to SR 153	Widen to 4 lanes	8,450,000	2.30	2030
11th St S	at Market Ave	Roundabout	1,240,000		2030
The O'Jays/Madison	The O'Jays/Madison	Realignment	3,720,000		2030
30th St NE	At Harrisburg Rd	Intersection Improvement	6,200,000	0.10	2030
Cleveland Ave	9th St NW/51st NW	Streetscape	14,400,000		2040
Fulton Dr	4th St NW/I-77	Streetscape	8,640,000		2040
Market Ave	Market Ave	Streetscape	7,200,000		2040
Downing	Near Dueber	Landslide Repair	4,320,000		2040
Fohl	Dueber	Intersection	3,600,000		2040

Fairless Planning Area

Industrial Development on the old county farm property is expected to generate heavy truck volumes in the future. One project will improve Fohl Street from the Village of Navarre east to I-77. This would tie into an extension of Sterilite Ave through the county farm property, connecting Navarre Road to Fohl Street. A proposed roundabout at Fohl Street and Shepler Church Avenue would improve safety and truck-traffic flow on Fohl Street. These improvements will provide better access to this area from I-77. Other projects in this area include a streetscaping in Brewster, three intersection improvements, and a resurfacing project.

Table 4-7- Fairless Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Fohl St	At Shepler Church Ave	Roundabout	1,343,400	0.10	TIP
Shepler Church Ave, CR 257	Tusc Co Line to Cleveland Ave	Resurfacing	650,000	10.37	2015
SR 93, Wabash Ave	4th St S to RR Overpass	Streetscape	846,720	0.30	2020
Alabama Ave, CR 314	At Stanwood St	Intersection Improvement	1,040,000	0.10	2030
Fohl St, CR 252	Navarre to I-77	2-Lane Improvement	6,799,000	5.23	2030
Sherman Church	Haut	Intersection	7,200,000		2040
US 62	Pigeon Run/Justus	Intersection	10,800,000		2040

Hartville/Lake Planning Area

The Route 619 corridor has experienced traffic growth due to residential development in Lake Township and commercial development on the west side of Hartville. Traffic problems are especially acute on days when the Hartville Flea Market is in operation. Market Avenue through the Township is also becoming congested and safety has become a concern at several intersections. ODOT has recently completed a study of SR 619 in Lake Township. SCATS recommends improving SR 619 between Cleveland Avenue and SR 43 (Kent Avenue) by widening it to three to four lanes. Three intersections are also recommended for improvement.

Table 4-8- Hartville/Lake Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Market Ave, CR 62	At Mt Pleasant	Intersection Improvement	1,860,000	0.10	2030
SR 619, Edison St	Cleveland Ave to Kent Ave	Widen to 3/4 lanes	11,643,600	3.13	2020

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
SR 619 02.59	from Kaufman Ave/Milan St	Widen to 3 lanes, intersection improvements	4,380,000	1.61	TIP
Cleveland Ave	at State St	Intersection	3,100,000		2030
Cleveland Ave.	at Wright Rd.	Intersection	2,976,000		2030
Pontius	Duquette	Intersection	2,880,000		2040

Jackson Planning Area

SCATS recently initiated a study of the northern part of this area. The recommendations from this study are not final yet, however, several preliminary recommendations have been included in the plan. These recommendations include widening Applegrove Street from Whipple Avenue to Frank Avenue to five lanes, widening both Shuffel Street and Strausser Street to three lanes between SR 241 and Frank Avenue, extending Strip Avenue to Applegrove Street, and connecting Portage Street and Mega Street just north of Stark State. Several intersection improvements are also recommended.

The Jackson planning area also includes several arterial widening recommendations. SCATS recommends widening SR 241 to four lanes from Hills & Dales Road to Portage Street and from Portage Street to the county line. Along SR 687, SCATS calls for widening Fulton Road to five lanes from Wales to Brunnerdale.

Also included in the plan is a project to widen Frank Avenue to four to five lanes from Fulton Road to University Street. Frank Avenue will also be widened to five lanes from Mega Street to Shuffel Street.

Other widening projects include Whipple Avenue from Applegrove Street to Shuffel Drive and Jackson Avenue from 12th Street to Perry Drive.

Several other smaller projects will resurface existing roads and improve intersections.

Table 4-9- Jackson Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Frank Ave, CR 229	Mega St to Shuffel	Widen to 5 lanes	7,440,000	1.13	2030
Portage St, CR 228	Lake O'Springs Ave to Frank Ave	Resurfacing	598,400	1.00	2015
Applegrove St.	Whipple to Frank	Widen to 5 lanes	9,300,000		2030
Frank Ave, CR 229	Fulton Dr to University St	Widen to 3 or 4 lanes	3,136,000	1.25	2030

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
SR 687, Fulton Rd	0.28 miles E of SR 241 to Brunnerdale Ave	Widen to 5 lanes	4,032,000	1.00	2020
SR 241, Wales Ave	Portage St to Summit County Line	Widen to 4 lanes	5,005,000	2.37	2030
Strausser St, CR 231	At Lake O Springs Ave	Intersection Improvement	1,680,000	0.10	2030
Whipple Ave, CR 214	Applegrove St to Shuffel Dr	Widen to 5 lanes	3,720,000	0.56	2030
Everhard Rd, CR 215	At Whipple	Widen intersection to 5 or more Lanes	6,656,000	0.22	2030
Jackson Ave, TR 242	12th St NW to Perry Dr	Widen to 3 lanes	2,600,000	1.11	2030
SR 241, Wales Ave	Portage St to Summit County Line	Widen to 4 lanes	5,005,000	2.37	2030
Portage St	at Frank	Intersection Improvements	3,720,000		2030
Portage-Mega Connector	Portage St Mega St	New road	6,200,000		2030
Strausser	at SR 241	Intersection Improve	2,480,000		2030
Strausser St	Lake O Springs to SR 241	Roadway alignment	7,440,000		2030
SR 241, Wales Ave	Hills&Dales Rd to Portage St	Widen to 4 lanes	11,079,400	5.50	2030
Pittsburg	Shuffel/Orion	Intersection	7,200,000		2040
Shuffel St	Frank/SR 241	3-lane Widening	4,320,000		2040
Strausser St	Frank/SR 241	3-lane Widening	4,320,000		2040
Strip Ave	Portage/Applegrove	3-lane Extension	7,200,000		2040

Louisville/Nimishillen Planning Area

SCATS recommends a new 2-lane road with a railroad grade separation at Constitution Avenue, relocating SR 44 to bypass the downtown center. SCATS recommends an extension of Reno Drive to connect SR 44 to Nickleplate Avenue. Three intersections along Paris Avenue will also be improved.

Table 4-10- Louisville/Nimishillen Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Paris Ave	At Meese Rd./ Easton St	Safety improvements	3,159,890	0.20	TIP

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Paris Ave.	at State St.	Intersection	2,480,000		2030
Columbus Rd	At Paris Ave	Intersection Improvement	1,400,000	0.10	2030
SR 44 Bypass	SR 44 to SR 153 to Frana Clara	2-Lane Bypass/RR Bridge	6,480,000	1.70	2040
Reno Drive	SR 44 to Nickleplate Ave	New 2-Lane Connector	360,000	0.25	2040

Massillon/Perry Planning Area

Two projects in this area will improve access from US 30 to southeast Massillon. The first project would improve Richville Drive from Nave St to Southway St. This project would include minor realignment of the intersection at Southway Street. Another project would extend this project along Walnut Avenue to 16th Street SE.

There are no railroad grade separations on the Norfolk Southern System railroad between Erie Avenue in Massillon, and Harrison Avenue in Canton. This results in a potentially hazardous condition where the north/south movement of safety forces could be impeded by a stopped train. Therefore Jackson Avenue is recommended to be extended between Southway Ave and Lincoln Way as a 2-lane improvement with a grade separation. The Whipple Avenue project in the Canton area (discussed previously) will provide another grade separation.

On SR 241, between Lincoln Way and Hills & Dales Rd, the addition of turn lanes is recommended to supplement the existing two lanes. Another recommendation is for an upgrade of the Lake Avenue intersection.

In the 12th St corridor beginning in the west, the first project would be a 2-lane improvement on Hankins from Wales Avenue to Louisa Marie Avenue. 12th street would be upgraded between Genoa Avenue and Perry Drive at the Sippo Lake Park entrance to eliminate flooding problems.

South of US 30, Navarre Road would be widened from SR 21 for one mile and Sterilite Street extended south to Fohl Street. These two projects will serve future traffic from the industrial and commercial development of the old county farm and other properties in this area.

At SR 21 and Erie Avenue, the existing bridge would be widened to allow three full lanes. Other projects in the Massillon/Perry area include intersection improvements, bridge rehabilitations, a trail, and system preservation projects.

Table 4-11- Massillon/Perry Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
O & E Canal Towpath Trail	Walnut Rd/Lincoln Way	Bike/Ped Trail	795,056		TIP

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Jackson Ave, TR 242	Richville Dr to Lincoln Way	2-Lane Improvement/RR Bridge	9,920,000	1.50	2030
Hankins St, CR 240	Wales Ave to Louisa Marie Ave	2-Lane Improvement	2,016,000	1.30	2020
Main St	At Tremont	Upgrade Intersection	1,500,000	0.10	2030
Richville Dr	Nave St to Southway St	Minor widening resurfacing, shoulders, etc.	638,400	1.56	2020
SR 241, Wales Rd	Lincoln Way East to Hills & Dales Rd	2-Lanes Improvement Turn Lane	5,040,000	1.49	2020
SR 241, Wales Rd	At Lake Ave	Upgrade Intersection	1,680,000	0.10	2020
Walnut Rd	Southway St to 16th St	2 Lane improvement	495,000	0.25	2020
Navarre Rd, CR 511	SR 21 to 1 Mile E of SR 21	Widen to 3 lanes	2,000,000	1.00	2030
SR 172, Lincoln Way West	At Main St	Upgrade Intersection	1,300,000	0.10	2030
Sterilite St Extension	Navarre Rd to Fohl St	New 2-Lane Connector	5,200,000	1.00	2030
Amherst Rd	Amherst Rd	Improvements	2,640,000		2020
Hankins Rd	Hankins Rd	Realignment	1,320,000		2020
Lincoln Way	Lincoln Way	Streetscape	5,060,000		2020
Lincoln Way E	Lincoln Way E	Widening	3,080,000		2020
Main Ave W	Main Ave W	Resurfacing	594,000		2020
Richville Dr.	Richville Dr.	Improvements	3,740,000		2020
SR 241/SR 172	SR 241/SR 172	Signalization	3,080,000		2020
Perry Dr.	at Harris Ave.	Intersection	2,480,000		2030
Perry Dr.	at Tuscarawas St	Intersection and Widen	4,340,000		2030
Lake Ave NE	Lake Ave NE	Improvements	1,860,000		2030
Nave St	Nave St	Improvements	2,604,000		2030
Tremont Ave	at Main Ave	Roundabout	1,860,000		2030
Tremont Ave SE	Tremont Ave SE	Improvements	1,860,000		2030
Wales Rd	at Hills & Dales Rd	Roundabout	496,000		2030
Warmington St	Warmington St	Improvements	3,348,000		2030
Richville Dr.	Navarre Rd.	Intersection	3,600,000		2040

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Jackson Ave	12th St NW to Perry Dr	Widen to 3 lanes	2,880,000	2.00	2040
17th St SW	17th St SW	Improvements	2,160,000		2040
29th St NW	29th St NW	Improvements	979,200		2040
3rd St NW	3rd St NW	Improvements	1,440,000		2040
Cherry Rd NW	Cherry Rd NW	Improvements	1,800,000		2040
Harsh Ave SE	Harsh Ave SE	Improvements	1,080,000		2040

Minerva/Paris Planning Area

The US 30 extension projects are the major projects within this planning area. Other projects in this area include a streetscape project on existing US 30 in the village of Minerva and an intersection safety improvement at Georgetown Street and Paris Avenue.

Table 4-12- Minerva/Paris Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Georgetown St, CR 112	At Paris Ave	Intersection Improvement	1,860,000	0.10	2030
US 30, Lincoln Way	Bonnieview to Columbiana Co Line	Streetscape	432,000	0.30	2040

North Canton/Plain Planning Area

Within this planning area, SR 43 is recommended to be widened to four lanes from 55th Street to the intersection of Market and Kent just south of Mt. Pleasant Street. Other major widening projects include the widening of Pittsburg Avenue from Applegrove Street to Shuffel Street and the widening of Orion Street to three lanes between Cleveland Avenue and Pittsburg Avenue.

The Werner Church Road Bridge over Nimishillen Creek will also be replaced with a possible realignment to eliminate the jog at Applegrove Street. A streetscaping project is planned along East Maple Street. Several intersection improvements as well as trails are also planned.

Table 4-13- North Canton/Plain Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Werner Church	At Applegrove St & Middlebranch Ave	Bridge Replacement and Roadway Impr.	6,422,890	0.80	TIP
Bike Crossing	Under Market Ave near Stone Crossing	Bike/Ped Trail	87,500		TIP

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
20th St NW, CR 221	At Lakeside	Intersection Safety Improvement	280,000	0.10	2020
Maple St	Walsh College to Market Ave	Streetscaping, Sidewalk & Storm Sewer	1,200,000		2020
Pittsburg Ave, CR 216	Applegrove St to Shuffel St	Widen, Add Turn Lane, Curb, Storm Sewer	935,000	0.45	2020
SR 43, Market Ave	55th St to Applegrove St	Widen to 4 lanes	13,771,000	2.00	TIP
SR 43, Market Ave	Applegrove St to Mt Pleasant St	Widen to 4 lanes	4,550,000	1.12	2030
Hoover Trail West	Dressler Bridge/N Canton YMCA	Multi-use path	887,583		TIP
Easthill St	300' east of S Main St	Bridge Replacement & Approach Imp.	1,250,000	0.10	2020
Portage St/Charlotte St	Lindy Lane/N Main St	Improvements	2,500,000	0.60	2020
W Maple St	Ream Ave/Main St	Widening, new signal	1,000,000	0.1	2020
Easton St.	at Bentler	Intersection	1,860,000		2030
Easton St.	at Glenoak Service Ent	Intersection	3,720,000		2030
Orion St	Pittsburg/Cleveland	3-lane Widening	5,760,000		2040
Portage St	Pittsburg	3-lane Widening	5,760,000		2040

Osnaburg Planning Area

Major highway projects planned for the Osnaburg Planning Area include the extension of US 30 to SR 44 and beyond. A related project is a new connector from the new US 30 interchange with SR 44 to the intersection of SR 172 at Miday Avenue. Since SR 44 is likely to be the terminus of the US 30 freeway for a number of years, this connector will allow US-30 traffic a choice of US 30, SR 44 or SR 172 to continue south or east. These projects are described in the US 30 corridor section. The remaining projects in this area are intersection upgrades at SR 44 and Mapleton Avenue and SR 44 and Orchard View Drive.

Table 4-14- Osnaburg Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
SR 44, Ravenna Ave	At Mapleton	Upgrade Intersection	550,000	0.10	2020
Orchard View	SR 44	Intersection	3,600,000		2040

Sandy Valley Planning Area

Two intersection improvements are planned for Battlesburg Street in this area. One is at Ridge Avenue, and the other is at Briggie Avenue.

Table 4-15- Sandy Valley Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Battlesburg	Ridge	Intersection	5,760,000		2040
Battlesburg	Briggie	Intersection	2,880,000		2040

Tuscarawas Planning Area

Three intersection improvements are recommended in the Tuscarawas Planning Area on Alabama Avenue. One is at Stanwood Street, one is at Orrville Street, and one is at Wooster Street.

Table 4-16- Tuscarawas Planning Area Projects

Road	Location	Type Work	Year of Expenditure Cost	Length (miles)	Complete by
Alabama Ave	At Stanwood St	Intersection Improvement	1,040,000	0.10	2030
Alabama Ave.	at Orrville St.	Intersection Improvement	1,860,000		2030
Alabama Ave.	Wooster St.	Intersection Improvement	2,480,000		2030

System Preservation Projects

The Highway Plan does not list all individual system preservation projects. SCATS recognizes the need to reserve funding for system preservation but cannot accurately forecast system preservation needs. System preservation projects include safety projects, resurfacing, bridge rehabilitation and replacement projects and other projects such as guardrail replacement, pavement markings, lighting and traffic signals. ODOT has made system preservation a priority for its budget. ODOT system-preservation needs are met through district allocations for both resurfacing and bridges. ODOT is committed to using the results of its management systems to assess current conditions and adjust funding levels to maintain the highway system to its standards.

In order to preserve funds for these projects, SCATS has included the following projects in the Project listings:

- ODOT System Preservation Projects
- Local System Preservation Projects
- Various Safety Improvements

Table 4-17- System Preservation Projects

Road	Location	Type Work	Year of Expenditure Cost	Complete by
ODOT System Preservation 2018 -2020		System Preservation	\$85,800,000	2020
ODOT System Preservation 2021-2030		System Preservation	\$322,400,000	2030
ODOT System Preservation 2031-2040		System Preservation	\$374,400,000	2040
Safety Projects 2018-2020		Safety Projects	\$9,900,000	2020
Safety Projects 2021-2030		Safety Projects	\$37,200,000	2030
Safety Projects 2031-2040		Safety Projects	\$43,200,000	2040
Local System Preservation 2018-2020		System Preservation	\$8,580,000	2020
Local System Preservation 2021-2030		System Preservation	\$32,240,000	2030
Local System Preservation 2031-2040		System Preservation	\$37,440,000	2040

System preservation projects off the state highway system do not rely on the federal funding programs for funding. The project listings in this chapter include some system preservation projects that local communities have identified in their capital improvement reports as candidates for federal funding. Other system preservation projects, especially resurfacing projects are funded with local funds. The County Engineer and the municipalities and townships in Stark County depend on the gas tax, vehicle registration fees, municipal income taxes and local road and bridge levies to maintain roads in the county. These funds are supplemented by Ohio Public Works Commission funds to pay for some system preservation projects on the roads and bridges in Stark County.

CHAPTER 5 – OTHER TRANSPORTATION MODES

Introduction

Livability, sustainability, context sensitivity, and multi-modalism are among the latest keywords used in transportation planning. These planning methodologies seek a holistic approach in planning where the impact of the transportation facility being considered is taken into context with the natural and manmade environment and all appropriate modes of transportation relevant for each situation.

Such a transportation system, one that considers the various modes of transportation as well as its surrounding, can be more efficient, safer, and less expensive to build, and have more positive impacts, than a system where only one mode of transportation is given priority. This chapter discusses the modes of transportation that should be considered when planning and designing roads that typically prioritize automobiles and trucks: public transportation; bicycle and pedestrian movement; and freight movement by highway, rail, and air.

Public Transportation

Stark County has access to multiple modes of public transportation: rail, through AMTRAK service in the City of Alliance and the Cuyahoga Valley Scenic Railroad in the City of Canton; air, through numerous providers at the Akron-Canton Airport (CAK) in the City of Green (Summit County) and Jackson Township; taxi services located throughout the county; intercity bus service by Lakefront Lines and the Stark Area Regional Transit Authority (SARTA); paratransit operations by for-profit and non-profit providers and SARTA; and fixed-route bus service by SARTA.

Coordinated Public Transit-Human Services Transportation Plan

SAFTEA-LU required the creation of a locally developed Coordinated Public Transit-Human Services Transportation Plan in order to receive FTA Job and Reverse Commute, New Freedom, and Section 5310 grant funds. SARTA became the designated recipient responsible for sub-allocating these funds in 2006.

In 2007 the Stark County Mobility Coordination Committee was formed from members of local non-profit, for-profit and governmental agencies, and transportation providers who participated in the opening meeting for coordination planning. SARTA led the development of the first Coordination Plan

Needs and gaps in service identified as priorities in the first plan include:

- Demand response services (immediate transportation needs for unexpected doctors appointments, etc.),
- 24/7 availability of transit services,
- additional service to rural areas,
- additional types of transportation services such as family coverage to multiple destinations, transportation for frail persons unable to utilize existing vehicles (such as cancer patients and the elderly),
- transportation to out-of-county medical appointments, and

- lack of information about available services

The awarding of a Veteran's Administration grant led the impetus for updating the plan to focus particular attention to veterans' needs and the adoption of MAP-21 resulted in expanding its scope to more fully involve seniors and other fragile populations.

Needs and gaps identified in the draft of the plan update presented in February 2013 include:

- Establish a SARTA one-call/one-click transportation center
 - Develop the center in close collaboration with the Stark United Way 211 program and other strategic partners
 - Create center through expansion and growth of SARTA's customer service center
 - Use SARTA's current IT development and VTCLI grant as the basis for technology development
 - Be as comprehensive and inclusive as possible with agencies that need access to transportation services and agencies and others that have transportation resources to make available
 - Embrace agencies and others that would prefer to get out of the business of transportation service delivery and purchase transportation services instead
 - All participation will be defined in partnership agreements which would express the duties and responsibilities of all parties, and the costs associated with participation
 - Be clear that there are costs and that partnerships include a value exchange
 - Take maximum advantage of technology in developing and maintaining the center
 - Extend access to and benefits of technology to center partners
 - Embrace the reality that not all people in need have the technology access that others have; low tech is a key element in access to services
- Reach out to all parties and educate about the transportation services available and how to take maximum advantage of available services
 - Educate agency staff so that they are able to educate agency clients
 - Educate agency clients directly where opportunities present themselves
 - Take maximum advantage of SARTA's travel training program, maximizing the opportunity for people in need to use SARTA's services effectively and services provided by partner agencies
 - Work closely with communities of advocates in training people with needs
- Develop transportation services in creative and non-traditional ways
 - Look for opportunities to collaborate with Stark County Educational Service Center and school districts
 - Look for opportunities to collaborate with the Stark DD Board
 - Understand how transportation services can be integrated with those provided in the managed care network
 - Find effective ways to take advantage of private transportation services
 - Take maximum advantage of sources of funding available at state and federal levels
 - Consistent with funding program regulations, use program funds to support and strengthen one-call/one-click transportation services
- Focus particular attention on hard to meet transportation needs

- Out of county travel
- Trips requiring multiple stops
- Rural areas of Stark county

Projects that have been funded through several rounds of grants include: subsidized rides for ADA passengers that SARTA cannot accommodate due to weight; a vehicle purchase assistance program for low/moderate income persons; a travel training program to assist ADA passengers in using the more efficient fixed-route bus service; and a program to transport returning ex-offenders to their workplace.

Stark Area Regional Transit Authority

SARTA is the primary public transportation provider in Stark County, providing approximately 2.5 million rides in 2012. The Canton Regional Transit Authority (CRTA) began operating as SARTA in 1997 following the successful passage of a ¼ percent sales tax levy which replaced Canton's Municipal RTA property tax. The continued renewal of the ¼ percent sales tax continues to be the primary source of funding for SARTA.

In slightly more than 15 years, SARTA's expansion to countywide service has included:

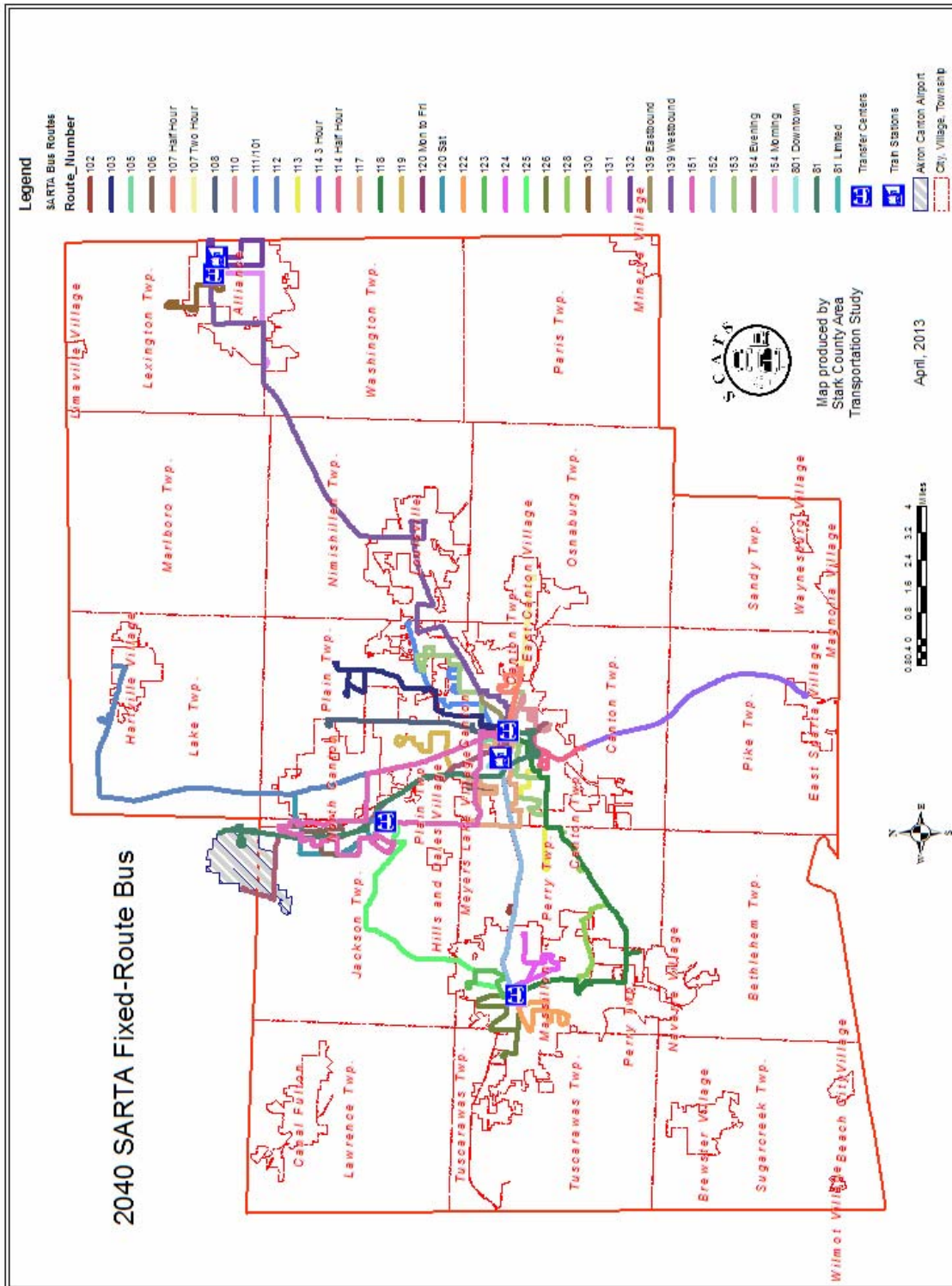
- Establishing transit centers in Stark County's three largest cities (Canton in 2003, Massillon in 2001, and Alliance in 2008 (replaced a 2002 building) and at Belden Village in Jackson Township in 2011, Stark County's largest retail destination;
- Expanding Paratransit service county-wide;
- Expanding service to late nights;
- Expanding service to include express service to Akron (which connects with Greyhound Lines, Metro (Summit County) and PARTA (Portage County) fixed-route services;
- Completed a major rebuilding and expansion at Gateway, SARTA's office and maintenance facility in 2005;
- Installed bicycle racks on all buses in 2009;
- Expanding service to include express service to Cleveland in cooperation with the Stark County Veterans Commission in 2013;
- Completing installation of a compressed natural gas (CNG) station and the conversion of a substantial part of the bus fleet to operate on CNG in 2012;
- Initiated creating an integrated communications data system to streamline operations, including providing route/bus information via mobile apps; and
- Initiated creating a one/click one call cooperative dispatch and information center in cooperation with non-profit and for profit transportation providers.

Non-SARTA Transit Projects

- Specialized Transportation Program (STP) Vehicles- this program has been managed by the ODOT Office of Transit in the past but with the passage of MAP-21 may to either the local transit agency or the MPO. This program provides funds for purchasing vehicles and operating equipment for private, non-profit social service agencies to serve persons with disabilities and the elderly that cannot be adequately served by existing services. MAP-21 is adding operating services to this program that were previously addressed by the New Freedom Program.

- Job and Reverse Commute (JARC) and New Freedom Programs- these programs assist projects that fill gaps in service that exist in public transit in Stark County. These are funds distributed through the Federal Transit Administration, administered by SARTA, and sub-allocated to for-profit and non-profit agencies and companies.

Map 5-1 SARTA Fixed Routes



The following table shows SARTA projects currently listed on the TIP.

Table 5-1- Public Transportation Projects through 2017

Project Name	Project Description	Phase	STIP Estimate 2014-2017	SFY	Fund Type	Obligation Description
SARTA 2014 <30' Buses	CMAQ and will involve a FHWA to FTA transfer of Flexible Funds	Capital	\$67,500	2014	Local Match	Local Dedicated
SARTA 2014 Bus Purchase	Purchase 29' buses	Capital	\$384,000	2014	Local Match	Local Dedicated
SARTA 2014 Buses	Purchase <30' Bus	Capital	\$201,600	2014	Local Match	Local Dedicated
SARTA 2014 Operating Assistance	Operating Assistance	Operating	\$625,000	2014	Local Match	Local Dedicated
SARTA 2014 Prev Maintenance	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$175,000	2014	Local Match	Local Dedicated
SARTA 2014 Security	Security	Capital	\$9,500	2014	Local Match	Local Dedicated
SARTA 2014 Transit Alternatives	Transit Alternatives	Capital	\$9,500	2014	Local Match	Local Dedicated
SARTA 2015 ADA Paratrst.	Mobility Management for FY 2013, 2014, 2015.	Capital	\$12,500	2014	Local Match	Local Dedicated
SARTA 2015 Buses	ADA Paratransit Service	Capital	\$95,000	2014	Local Match	Local Other
SARTA 2015 CNG Buses	New Freedom	Operating	\$43,250	2014	Local Match	Local Other
SARTA 2015 Operating Assistance	Purchase 29' buses	Capital	\$2,176,000	2014	Federal Transit Direct	Urban Formula Program
SARTA 2015 Prev. Maint.	Purchase <30' Bus	Capital	\$1,142,400	2014	Federal Transit Direct	Urban Formula Program
SARTA 2015 Security	Operating Assistance	Operating	\$2,500,000	2014	Federal Transit Direct	Urban Formula Program
SARTA 2015 Transit Alternatives	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$1,700,000	2014	Federal Transit Direct	Urban Formula Program
SARTA 2016 Operating Assistance	Security	Capital	\$38,000	2014	Federal Transit Direct	Urban Formula Program
SARTA 2016 Prev Maintenance	Transit Alternatives	Capital	\$38,000	2014	Federal Transit Direct	Urban Formula Program
SARTA 2016 Security	ADA Paratransit Service	Capital	\$380,000	2014	Federal Transit Direct	Urban Formula Program
SARTA 2016 Transit Alternatives	Mobility Management for FY 2013, 2014, 2015.	Capital	\$50,000	2014	Federal Transit Direct	Urban Formula Program

Project Name	Project Description	Phase	STIP Estimate 2014-2017	SFY	Fund Type	Obligation Description
SARTA 2017 Operating Assistance	New Freedom	Operating	\$43,250	2014	Federal Transit Direct	Enhanced Mobility
SARTA 2017 Prev Maintenance	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$250,000	2014	Federal	STP FLEXIBLE
SARTA 2017 Security	CMAQ and will involve a FHWA to FTA transfer of Flexible Funds	Capital	\$382,500	2014	Federal	CMAQ
SARTA 2017 Transit Alternatives	ADA Paratransit Service	Capital	\$95,000	2015	Local Match	Local Dedicated
SARTA ADA Paratransit Service	Purchase <30' Buses	Capital	\$201,600	2015	Local Match	Local Dedicated
SARTA ADA Paratransit Service	<30 ft CNG Buses	Capital	\$67,500	2015	Local Match	Local Dedicated
SARTA Mobility Management	Operating Assistance	Operating	\$625,000	2015	Local Match	Local Dedicated
SARTA Mobility Management	Preventive Maintenance	Capital	\$175,000	2015	Local Match	Local Dedicated
SARTA Mobility Management	Security	Capital	\$9,500	2015	Local Match	Local Dedicated
SARTA Mobility Management	Transit Alternatives	Capital	\$9,500	2015	Local Match	Local Dedicated
SARTA ADA Paratransit Service	Mobility Management for FY 2013, 2014, 2015.	Capital	\$12,500	2015	Local Match	Local Dedicated
SARTA New Freedom 2014	New Freedom	Operating	\$67,800	2015	Local Match	Local Other
SARTA New Freedom 2015	ADA Paratransit Service	Capital	\$380,000	2015	Federal Transit Direct	Urban Formula Program
SARTA 2014 Bus Purchase	Purchase <30' Buses	Capital	\$1,142,400	2015	Federal Transit Direct	Urban Formula Program
SARTA 2014 Buses	Operating Assistance	Operating	\$2,500,000	2015	Federal Transit Direct	Urban Formula Program
SARTA 2014 Operating Assistance	Preventive Maintenance	Capital	\$1,700,000	2015	Federal Transit Direct	Urban Formula Program
SARTA 2014 Prev Maintenance	Security	Capital	\$38,000	2015	Federal Transit Direct	Urban Formula Program
SARTA 2014 Security	Transit Alternatives	Capital	\$38,000	2015	Federal Transit Direct	Urban Formula Program
SARTA 2014 Transit Alternatives	Mobility Management for FY 2013, 2014, 2015.	Capital	\$50,000	2015	Federal Transit Direct	Urban Formula Program
SARTA 2015 ADA Paratrst.	New Freedom	Operating	\$67,800	2015	Federal Transit Direct	Enhanced Mobility

Project Name	Project Description	Phase	STIP Estimate 2014-2017	SFY	Fund Type	Obligation Description
SARTA 2015 Buses	<30 ft CNG Buses	Capital	\$382,500	2015	Federal	CMAQ
SARTA 2015 Operating Assistance	Preventive Maintenance	Capital	\$250,000	2015	Federal	STP FLEXIBLE
SARTA 2015 Prev. Maint.	Operating Assistance	Operating	\$625,000	2016	Local Match	Local Dedicated
SARTA 2015 Security	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$175,000	2016	Local Match	Local Dedicated
SARTA 2015 Transit Alternatives	Security	Capital	\$9,500	2016	Local Match	Local Dedicated
SARTA 2016 Operating Assistance	Transit Alternatives	Capital	\$9,500	2016	Local Match	Local Dedicated
SARTA 2016 Prev Maintenance	ADA Paratransit Service	Capital	\$95,000	2016	Local Match	Local Dedicated
SARTA 2016 Security	Mobility Management	Capital	\$12,500	2016	Local Match	Local Dedicated
SARTA 2016 Transit Alternatives	Operating Assistance	Operating	\$2,500,000	2016	Federal Transit Direct	Urban Formula Program
SARTA 2017 Operating Assistance	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$1,700,000	2016	Federal Transit Direct	Urban Formula Program
SARTA 2017 Prev Maintenance	Security	Capital	\$38,000	2016	Federal Transit Direct	Urban Formula Program
SARTA 2017 Security	Transit Alternatives	Capital	\$38,000	2016	Federal Transit Direct	Urban Formula Program
SARTA 2017 Transit Alternatives	ADA Paratransit Service	Capital	\$380,000	2016	Federal Transit Direct	Urban Formula Program
SARTA ADA Paratransit Service	Mobility Management	Capital	\$50,000	2016	Federal Transit Direct	Urban Formula Program
SARTA ADA Paratransit Service	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$250,000	2016	Federal	STP FLEXIBLE
SARTA ADA Paratransit Service	Operating Assistance	Operating	\$625,000	2017	Local Match	Local Dedicated
SARTA Mobility Management	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$175,000	2017	Local Match	Local Dedicated
SARTA Mobility Management	Security	Capital	\$9,500	2017	Local Match	Local Dedicated
SARTA Mobility Management	Transit Alternatives	Capital	\$9,500	2017	Local Match	Local Dedicated
SARTA Mobility Management	ADA Paratransit Service	Capital	\$95,000	2017	Local Match	Local Dedicated

Project Name	Project Description	Phase	STIP Estimate 2014-2017	SFY	Fund Type	Obligation Description
SARTA New Freedom 2014	Mobility Management	Capital	\$12,500	2017	Local Match	Local Dedicated
SARTA New Freedom 2015	Operating Assistance	Operating	\$2,500,000	2017	Federal Transit Direct	Urban Formula Program
SARTA 2015 CNG Buses	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$1,700,000	2017	Federal Transit Direct	Urban Formula Program
SARTA 2014 Prev Maintenance	Security	Capital	\$38,000	2017	Federal Transit Direct	Urban Formula Program
SARTA 2015 Prev. Maint.	Transit Alternatives	Capital	\$38,000	2017	Federal Transit Direct	Urban Formula Program
SARTA 2016 Prev Maintenance	ADA Paratransit Service	Capital	\$380,000	2017	Federal Transit Direct	Urban Formula Program
SARTA 2017 Prev Maintenance	Mobility Management	Capital	\$50,000	2017	Federal Transit Direct	Urban Formula Program
SARTA 2014 <30' Buses	Preventive Maintenance - STP funds only are flex fund transfer	Capital	\$250,000	2017	Federal	STP FLEXIBLE

- Bus replacements scheduled for this period include five (5) 29' buses and thirty-two (32) <30' paratransit buses

Transit Projects scheduled 2018 through 2020 include:

SARTA Transit Projects

- Bus replacements- from 2018 through 2020 SARTA will replace four (4) 29' buses and thirty-two (32) <30' paratransit buses;

Non-SARTA Transit Projects

- Specialized Transportation Program (STP) Vehicles- this program is managed by the ODOT Office of Transit and purchases vehicles for private, non-profit social service agencies to serve persons with disabilities and the elderly that cannot be adequately served by existing services. The amount awarded varies with the number of vehicles awarded in each program year;
- Job and Reverse Commute (JARC) and New Freedom Programs- these programs assist projects that fill gaps in service that exist in public transit in Stark County. These are funds distributed through the Federal Transit Administration, administered by SARTA, and sub-allocated to for-profit and non-profit agencies and companies.

Table 5-2- Public Transportation Projects through 2020

Project Description / Location	Federal	Local	Total	Fiscal Year
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2018
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2018
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2018
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2018
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2018
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2018 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2019
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2019
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2019
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2019
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2019
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2019 Total
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2020
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2020
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2020
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2020
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2020
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2020 Total
Total through 2020	\$ 12,918,000.00	\$ 2,292,000.00	\$ 15,210,000.00	

Transit Projects scheduled 2021 through 2030 include:

SARTA Transit Projects

- Bus replacements- from 2021 through 2030 SARTA will replace approximately twenty-six (26) 35' and five (5) 40' buses and 90 <30' paratransit buses. NOTE: SARTA's paratransit bus replacement schedule does not extend this far. Figures are based on replacing paratransit vehicles (<30' vehicles) every three years;

Non-SARTA Transit Projects

- Specialized Transportation Program (STP) Vehicles- this program is managed by the ODOT Office of Transit and purchases vehicles for private, non-profit social service agencies to serve persons with disabilities and the elderly that cannot be adequately served by existing services. The amount awarded varies with the number of vehicles awarded in each program year;
- Job and Reverse Commute (JARC) - these programs assist projects that fill gaps in service that exist in public transit in Stark County. These are funds distributed through the Federal Transit Administration, administered by SARTA, and sub-allocated to for-profit and non-profit agencies and companies.

Table 5-3- Public Transportation Projects through 2030

Project Description / Location	Federal	Local	Total	Fiscal Year
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2020
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2020
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2020
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2020
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2020

Project Description / Location	Federal	Local	Total	Fiscal Year
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2020 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2021
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2021
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2021
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2021
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2021
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2021 Total
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2022
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2022
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2022
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2022
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2022
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2022 Total
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2023
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2023
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2023
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2023
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2023
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2023 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2024
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2024
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2024
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2024
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2024
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2024 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2025
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2025
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2025
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2025
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2025
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2025 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2026
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2026
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2026
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2026
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2026
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2026 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2027
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2027
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2027
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2027
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2027
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2027 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2028
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2028
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2028
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2028
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2028
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2028 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2029
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2029
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2029
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2029
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2029
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2029 Total
Total through 2029	\$ 43,060,000.00	\$ 7,640,000.00	\$ 50,700,000.00	

Table 5-4- Public Transportation Projects through 2040

Project Description / Location	Federal	Local	Total	Fiscal Year
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2030
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2030
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2030
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2030
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2030
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2030 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2031
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2031
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2031
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2031
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2031
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2031 Total
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2032
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2032
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2032
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2032
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2032
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2032Total
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2033
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2033
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2033
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2033
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2033
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2033 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2034
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2034
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2034
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2034
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2034
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2034 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2035
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2035
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2035
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2035
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2035
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2035 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2036
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2036
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2036
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2036
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2036
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2036 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2037
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2037
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2037
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2037
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2037
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2037 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2038
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2038
ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2038
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2038
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2038
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2038 Total
SARTA Operating Expenses	\$ 1,900,000.00	\$ 475,000.00	\$ 2,375,000.00	2039
Preventive Maintenance	\$ 1,950,000.00	\$ 175,000.00	\$ 2,125,000.00	2039

ADA Paratransit Service	\$ 380,000.00	\$ 95,000.00	\$ 475,000.00	2039
Security	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2039
Transit Enhancements	\$ 38,000.00	\$ 9,500.00	\$ 47,500.00	2039
	\$ 4,306,000.00	\$ 764,000.00	\$ 5,070,000.00	2039 Total
Total through 2040	\$ 43,060,000.00	\$ 7,640,000.00	\$ 50,700,000.00	

- Bus replacements- from 2031 though 2040 SARTA will replace approximately twenty-six (26) 35' and five (5) 40' buses and 90 <30' paratransit buses. NOTE: SARTA's bus replacement schedule does not extend this far. Figures are based on replacing paratransit vehicle (<30' vehicles) every three years and >30' buses every ten to twelve years.

Transit Projects Not Fiscally Constrained

Funding for the following projects, which can occur during any of the three project time frames, has not been secured at this time:

- Community Circulators- this project would assist in planning and expanding community circulator service in new and existing areas where demand warrants their expansion. These routes (and/or on-demand service) would then tie into express and/or fixed routes that would interconnect the service areas;
- Park and Ride Lots- this project would assist in building four Park-and-Ride lots and the coordination of express runs to service them. Locations would include the IR77 and US30 corridors as well as the proposed Tri-County Service project which would assist Amish community needs;
- Tri-County Service- this project would expand service to Holmes and Wayne counties, including jointly operated bus services and transfer locations between counties. Service would be in the form of community circulators tied to express services originating at park & ride lots;
- Bus Rapid Transit (BRT) Projects- these projects would upgrade corridors similar to what is in progress and planned for the Mahoning Road BRT Corridor for Tuscarawas Street, Whipple Avenue and other corridors. In addition to providing for the replacement of public utilities, road infrastructure and streetscapes, the project would incorporate transit friendly components to encourage the use of public transportation. These would include bus pull-off lanes/passenger shelters and pedestrian improvements;
- Smart Cards & Ticket Vending Machines- this project will implement automated smart card technology for use with fare-boxes. The use of "refillable" plastic smart cards will streamline tickets sales and use, simplify tracking ticket sales and use, and lessen the need for printing paper tickets and transfers.

Table 5-5- Public Transportation Projects Not Fiscally Constrained

PROJECT/DESCRIPTION	COST	YEAR
Bus Pull-Off Lanes	\$805,000	By 2040
Community Circulators	\$575,000	By 2040
Improved Shelters/Bus Stops	\$56,000	By 2040
Park and Ride Lots	\$322,000	By 2040
Tri-County Service	\$638,000	By 2040
BRT Corridor Projects @ \$20 million each	\$40,000,000	By 2040
Smart Cards and Ticket Vending Machines	\$350,000	By 2040

Pedestrian and Bicycle Access and Trails

This section will briefly discuss the background of planning pedestrian and bicycle access in Stark County, current planning efforts, descriptions of completed work, and scheduled projects through the year 2040.

Stark County Trail and Greenway Plan

The *Stark County Trail and Greenway Plan* has been the backbone of bicycle and pedestrian planning for Stark County since its publication in March of 1999. The plan was developed by the Stark County Park District (with SCATS participation and assistance) and was adopted as the bicycle and pedestrian plan portion of the SCATS long range plan. Regional meetings throughout the county with local officials, trail advocates, and residents resulted in the creation of an ambitious countywide trail system of more than 300 miles of proposed trails. Today, almost 30% of the system has been completed or is under construction.

The *Trail and Greenway Plan*, as well as Stark Park's 5-Year Plan, are in the process of being updated and will be completed soon after this plan is adopted. Although some identified changes have been incorporated into this long range plan, substantial revisions and detail will be available to improve this portion of the long range plan in the near future. The Park District is also planning to complete a fiscal analysis that will be used to refine proposals within the plans once they are completed. SCATS, working with the Park District, will use this additional information in refining recommendations within this section of the Plan once they are completed and will be used in the next long range plan update.

Although the trail plan was developed by the Park District, it is not just a system of recreational trails. Major portions of the plan follow "historic" transportation routes, such as canal lands and abandoned interurban and intrastate rail lines, as well as following infrastructure (water/sewer lines, etc.). Thus these "recreational" trails serve to connect communities and urban centers inside and outside of Stark County. The Ohio & Erie Canalway Towpath Trail highlights our rich heritage in transportation history and provided a model of trail development that has spurred ancillary developments. It should be noted that the plan was primarily intended to identify general corridors for trails, and detailed planning and construction of specific routes occurs as opportunities arise.

With significant portions of the trail system completed, public support has increased as the benefits of the trail system become evident. Support and demand for bicycle and pedestrian trails and incorporating bicycle friendly designs into roadways is evidenced by:

- the Stark County Regional Planning Commission's *2030 Comprehensive/Transportation Plan* calls for encouraging walkable neighborhoods and includes pedestrian and bicycle facilities as a necessary quality-of-life issue;
- "Go Green" walkable community efforts encouraged by citizen and environmental groups;

- Health providers are encouraging healthy lifestyles, seeking to reverse the trends towards youth and adult obesity. These efforts include programs such as “Healthy Steps” which encourage walking (utilizing the Canal Towpath trail and other trails);
- Stark Parks “Hike-a-Hundred” Program, where participants are encouraged to walk 100 miles on Stark Parks trails;
- “Complete Streets”, The National Complete Streets Coalition is an advocacy group calling for the adoption of “complete streets” policies by transportation planning agencies and others. The policies call for constructing streets designed for all potential users, including pedestrians, bicyclists, and others. Many of their policies have been adopted by MPO and other planning agencies;
- conceptual plans by the City of Canton to implement an extensive complete streets plan once their pilot project currently under construction is completed;
- the Safe Routes to School program and SmartMobility pilot programs serve as templates for planning efforts;
- The Ohio Department of Natural Resources, recognizing the popularity and multiple benefits of trails, has set a goal for all Ohio residents to be within 10-minutes of a recreational trail; and
- Park District support from residential and commercial developers, school districts, local governments and others in providing rights-of-ways.

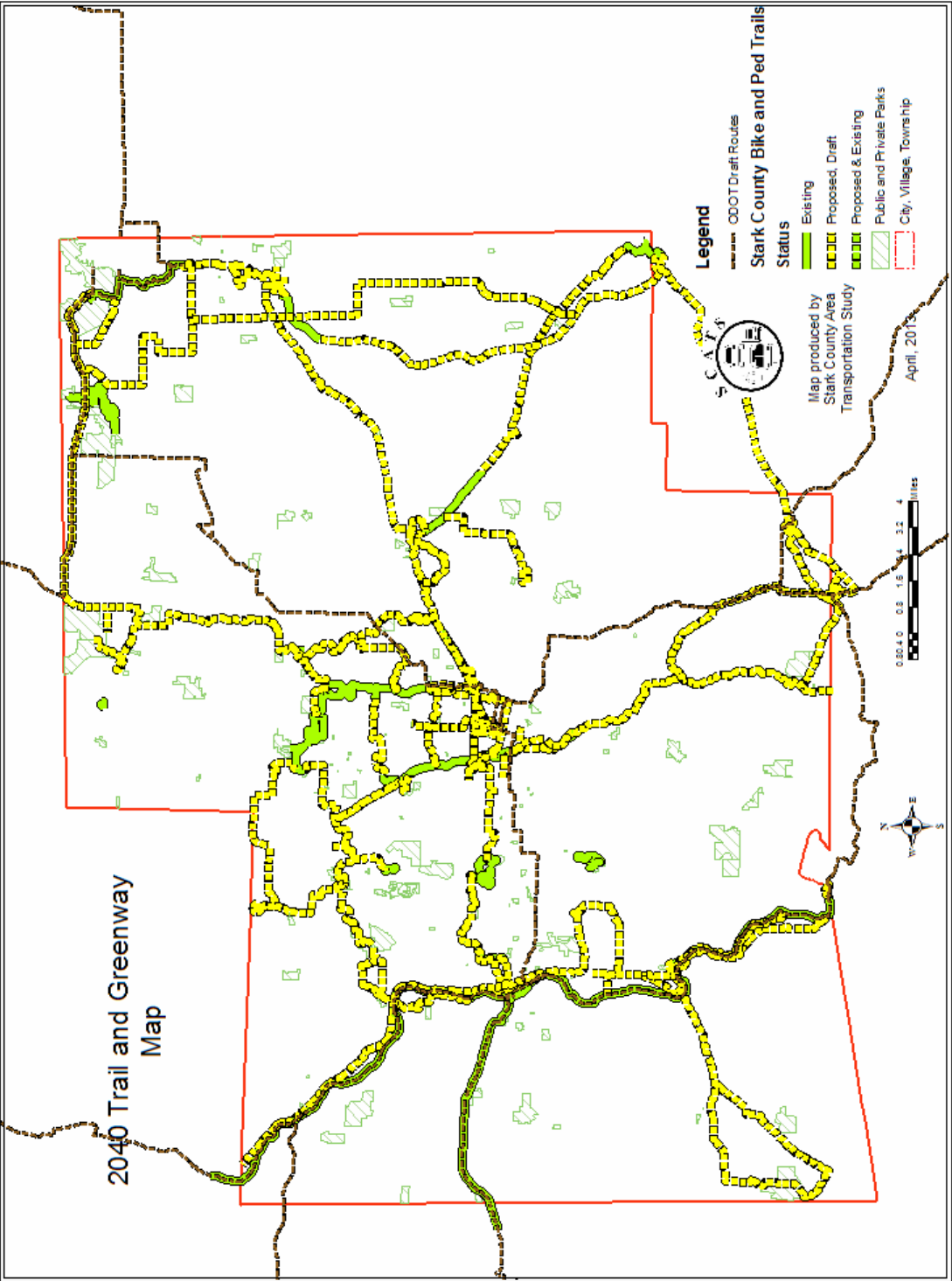
Additional Planning Efforts and Incorporating Pedestrian and Bicycle Needs into a Multi-Modal System

In addition to the Stark Parks plan, SCATS is in the process of completing a sample “complete streets” plan for the Belden Village area, will be working on a bicycle user map of Stark County, and will incorporate additional data into the GIS system that will assist in bicycle and pedestrian planning.

The Belden Village Complete Streets study identifies existing pedestrian infrastructure, transit facilities, etc., and will provide recommendations for projects to improve pedestrian and bicycle circulation in one of Stark County’s most densely developed retail areas. The recent completion of a transit center on Whipple Avenue highlights the need for additional pedestrian infrastructure. Westfield Belden Village Mall is a five minute walk from the transit center on a road carrying almost 22,000 vehicles per day. The shortest walking route to the mall utilizes Whipple Avenue, which has no sidewalks, and results in pedestrians crossing one of the most heavily congested and dangerous intersections in the county.

A number of metropolitan planning agencies have recently produced bicycle user maps that identify bicycle and pedestrian facilities and rate the ‘usability’ of roads for bicyclists. SCATS has included developing a map in its work program for the coming year. As well as identifying the suitability of roads for bicyclists, planning for the map will provide an opportunity to identify routes currently in use by the Stark County cycling community. This will allow for identifying demand for bicycle lanes, caution signs, and other improvements. Part of this project will include GIS mapping of bicycle and pedestrian accident locations. This will assist in providing data necessary for developing Safe Routes to Schools plans.

Map 5.2 Stark County Bike and Pedestrian Trail Plan



Funding the Bicycle and Pedestrian Plan

A limited amount of funding for trails is available through SCATS in the Transportation Alternatives (formerly Transportation Enhancements) Program with Federal Highway funds. Due to the limited amount of this type of funding, it has usually been used for high priority projects, such as adding bicycle/pedestrian lanes on bridges that otherwise would not have such access included. Funding for Canton's complete streets projects and the Mahoning Bus Rapid Transit project include Congestion Mitigation/Air Quality funding and FTA funds, respectively.

A majority of funding and resources for trail construction is obtained by the Stark County Park District through their property tax levy, grant applications and the assistance of local communities. Current District resources are allotted in an amount that typically provides for 6 to 8 miles of trail construction per year. High cost portions of projects, such as major bridges and tunnels, have received congressional funding through specific line items and/or federal and state grants from trail programs, including the Clean Ohio Trail Fund. The Deer Creek Trail Bridge highlighted on the cover of this document was funded by an America Recovery and Reinvestment Act grant.

Bicycle and Pedestrian Plan

This section describes the pedestrian and bicycle work to be completed for each of the plan time periods. The plan is based predominantly on the *Stark County Trail and Greenway Plan*, which consists of more than 20 major trails and "connectors" creating a network approximately 300 miles in length. More than 27% of the proposed plan has been completed. The trails include a mixture of off-road, on-road, and trails on roadway berms.

Pedestrian and Bicycle Projects scheduled and in-progress through 2017 include:

- The Congressman Ralph Regula Towpath Trail parallels the Tuscarawas River and Ohio-Erie Canal between the northwestern and southwestern county lines for approximately 25 miles, passing through the communities of Canal Fulton, Massillon, Navarre and Lawrence, Jackson, Perry, and Bethlehem Townships. Remaining work includes the construction of the "aqueduct" bridge over the Tuscarawas River (connecting Stark and Tuscarawas Counties) and related trail sections and the installation of a ramp from the levee in Massillon to the Tremont Avenue Bridge as a means to bypass the Norfolk and Southern Railroad. This bypass then uses Oak Knoll Park and the Walnut Road Bridge over the Tuscarawas River to connect to the trail as it continues south. Both of these projects are underway (design contract awarded for the ramp and construction contract for the bridge) and will be completed by the end of 2014.
- The Jackson Connector Trail will tie the Towpath Trail into the central trail network and passes primarily through Jackson Township. Phase one will complete a trail on the KSU Campus connecting it to the existing pedestrian/bicycle lane on the Hall of Fame Bridge which crosses I-77. Stark Parks was recently awarded an ODOT grant for this section of trail planned for completion in 2014.

- Hoover Park Connector Phase 4 will connect the Jackson Connector Trail (from the Hall of Fame Bridge) to Price Park and the YMCA in the City of North Canton to the existing Hoover Park Trail System.
- The Mahoning Valley Trail, completed to Early Hill Park in the City of Alliance, will extend south through the city as the Iron Horse Trail. Described by the City as Phase 8 of the Iron Horse Trail, this section will be completed by 2016 and will extend from Early Hill Park to Walnut Avenue just south of its intersection with Vine. The planned sections of the Iron Horse Trail through the City of Alliance are numbered from the south corporation line and do not necessarily reflect its construction order. The trail follows an abandoned rail line and sidewalks and areas through Mount Union College and Alliance School properties until connecting to the existing Iron Horse Trail at Dogwood and Edgewood Streets.
- Iron Horse Phase 1 (not related to numbered phases within the City of Alliance) will extend the existing trail from the First Christian Church to SR153, approximately 5 miles south.
- The Nickel Plate Trail will connect the City of Louisville and Village of Minerva primarily via an abandoned Nickel Plate Railroad right-of-way. The trail is complete from Metzger Park in the City of Louisville for approximately 2.6 miles through the city and Nimishillen and Osnaburg Townships. The next phase will acquire right-of-way between Swallen Avenue and Stucky Street in Osnaburg and Paris Townships. Construction from Swallen to SR 183, near Minerva, is slated for 2016.
- Sandy Valley Loop Trail would form a loop trail using remnants of the Sandy-Beaver Canal and abandoned rail right-of ways connecting the villages of East Sparta, Magnolia, Waynesburg, and Minerva. A small section of this trail in Waynesburg, and extending east from the Village, will be completed in 2013.
- The Stark Electric Railway Trail will be completed within the City of Canton from Cook Lagoon Park eastward toward the completed section and also connect to downtown as part of the Mahoning Bus Rapid Transit project.

Table 5-6- Pedestrian and Bicycle Projects through 2017

TRAIL	FROM	TO	DESCRIPTION	COST	LENGTH (MILES)	YEAR
Sandy Valley Trail	Gerdanville Ave	Greer Ave	Trail	\$40,000	1	2013
Ohio & Erie Canal Trail	SR212	Tuscarawas River	Bridge/Trail	\$1,000,000	1.2	2013
Ohio & Erie Canal Trail	Lincoln Way	Walnut	Ramp/Trail	\$1,500,000	.8	2014
Jackson Connector Ph 1	KSU	Stark State	Trail	\$200,000	1.50	2014
Iron Horse Trail Ph 1	First Christian Church	SR 153	Trail	\$500,000	5	2015
Nickel Plate Trail Ph 1	Swallen	Stucky	ROW	\$500,000	1	2015
Hoover Park Connector Ph 4	HOF Bridge	N. Canton YMCA	Trail	\$800,000	.8	2016
Mahoning Valley Trail	Early Hill Park	Iron Horse Trail	Trail	\$1,000,000	3	2016-18
Nickel Plate Trail Ph 2	Swallen	SR 183	Trail	\$1,000,000	8	2017
Stark Electric RR Trail	Cook Lagoon	Louisville	Trail	\$500,000	4	2017

Projects scheduled between 2018 through 2020 include:

- Additional sections of the Iron Horse Trail within the City of Alliance will be completed in 2017 and 2018 as well as a four mile section extending south from SR 153 to its intersection with the Nickel Plate Trail in 2019.

- The Sippo Lake Connector Phase 2 will connect the cities of Massillon and Canton together, as well as the Towpath Trail and West Branch Trail. This phase will extend the trail westward, from portions completed within Sippo Lake Park as part of the Exploration Gateway project, along 12th St NW to Genoa Ave. NW. It will then continue along the 12th St. NW corridor to the Towpath Trail via District-owned land, Massillon Parks, and Lake Avenue.
- The Sippo Lake Connector Phase 3 will extend from Sippo Lake east to the West Branch Trail. This section will likely follow the 12th Street corridor and possibly connect the Stark County Fairground and Westbrook Park into the trail network.
- The Upper Middlebranch Trail will connect the Hoover Park Connector to Quail Hollow State Park, passing through Plain and Lake Townships and the Village of Hartville.

Table 5-7- Pedestrian and Bicycle Projects 2018 through 2020

TRAIL	FROM	TO	DESCRIPTION	COST	LENGTH (MILES)	YEAR
Iron Horse Trail	Alliance	Alliance	Trail	Listed in 2016	3	2017
Iron Horse Trail	Alliance	Alliance	Trail	Listed in 2016	3	2018
Sippo Lake Connector Ph 2	O & E Canal Trail	Sippo Lake	Trail	\$1,000,000	3.2	2018
Iron Horse Trail Ph 2	SR 153	Nickel Plate Trail	Trail	\$500,000	4	2019
Sippo Lake Connector Ph 3	Sippo Lake	West Branch Trail	Trail	\$1,500,000	2.5	2020
Upper Middlebranch Trail	Glenoak High School	Quail Hollow State Park	Trail	\$8,000,000	8	2020

Projects scheduled between 2021 through 2030 include:

- The Sandy Valley Trail from Waynesburg to Minerva will be completed by 2021, leaving the section between the villages of Waynesburg, Magnolia and East Sparta to be completed.
- The completion of the Stark Electric Railway Trail will be broken into 2 phases, the section connecting the cities of Louisville and Alliance, passing through Nimishillen and Washington Townships and the section connecting Canton and Louisville, including the trail through Louisville.
- The West Branch Trail will be extended north to Dogwood Park in North Canton.
- The East Canton Connector Trail will connect the City of Louisville and the Village of East Canton. This trail will follow mostly road rights-of-way from East Canton to the Nickel Plate Trail.
- The Wilderness Center Trail, expected to follow mostly road rights-of-way in the berm, will connect the Villages of Navarre, Brewster, and Wilmot while passing through Bethlehem and Sugarcreek Townships. This trail will provide access between the Wilderness Center, a non-profit nature center and land trust, and the Canal Towpath Trail.

- The Pontius/Price Connector will connect Quail Hollow State Park and the Deer Creek and Walborn Reservoir areas primarily by Pontius and Price Streets.
- Several trails listed in the plan will be revised as other sections are completed. These include the Hartville/Quail Hollow Loop, the Sandy and Beaver Canal Trail, and the Stark Farmland Trail.

Table 5-8- Pedestrian and Bicycle Projects 2021 through 2030

TRAIL	FROM	TO	DESCRIPTION	COST	LENGTH (MILES)	YEAR
Sandy Valley Trail	Greer Ave	Minerva	Trail	\$2,500,000	9	2021
Stark Electric Railway	Canton	Louisville	Trail	\$450,000	3	2030
Stark Electric Railway	Louisville	Alliance	Trail	\$750,000	7	2030
Covered Bridge Trail	Covered Bridge Park	Middle Branch Trail	Trail/On Road	\$275,000	3	2030
West Branch	Arboretum Park	Price Park	Trail	\$320,000	4	2030
East Canton Connector	Louisville	East Canton	On Road	\$40,000	4	2030
Wilderness Center Trail	Navarre	Wilmot	Trail on berm	\$86,000	8.6	2030
Pontius/Price Connector	Quail Hollow	Walborn/Deercreek Reservoirs	On Road	\$105,000	10.5	2030
Sandy Valley Trail	East Sparta	Magnolia/Waynesburg	Trail/on Road	\$250,000	3	2030

Projects scheduled between 2031 through 2040 include:

- The Jackson Connector Trail will be completed in two phases, the section from the Crystal Springs area of the Towpath Trail to the Lake Cable area and then continuing to the KSU/Stark State College Campus.
- The Mount Pleasant Dogwood Trail will be completed in two phases, one from Lake Cable to Willowdale Lake and the other from Willowdale Lake to Dogwood Park in North Canton.
- The Lower Middlebranch Trail will extend south from completed portions of the Middle Branch Trail in Canton, south to the Village of East Sparta.
- The North Country Loop Trail will interconnect trails in the Deer Creek and Walborn Reservoir areas, primarily by existing roads, allowing for loop trips.
- The Iron Horse Trail from its intersection with the Nickel Plate Trail will be completed to the Village of Minerva, creating a loop trail system.
- The Pleasant Valley Trail would have connected the Lower Middle Branch Trail to the Sandy Valley Loop in Magnolia via Howenstine Drive and other roads. This trail could be retained in the future to create a loop trail but its use to connect to the Sandy Valley Trail has been superseded by the extension of the Sandy Valley Trail to the Fry Family Park and East Sparta.

Table 5-9- Pedestrian and Bicycle Projects 2031 through 2040

TRAIL	FROM	TO	DESCRIPTION	COST	LENGTH (MILES)	YEAR
Jackson Connector	Crystal Springs	Lake Cable	On Road	\$45,000	4.5	2040
Jackson Connector	Lake Cable	Devonshire Park/KSU	On Road	\$45,000	4.5	2040
Mount Pleasant/Dogwood	Lake Cable	Dogwood Park	Trail	\$105,000	11.5	2040

TRAIL	FROM	TO	DESCRIPTION	COST	LENGTH (MILES)	YEAR
Lower Middlebranch	West Park	East Sparta	Trail	\$235,000	9.5	2040
North Country Loop	Deer Creek	Alliance	Trail	\$400,000	5	2040
Iron Horse Trail	Nickel Plate Trail	Minerva	Trail	\$350,000	3	2040
Pleasant Valley	Howenstine	Waynesburg	Trail	\$35,000	3.5	2040
Stark Farmland Trail	Alliance	Minerva	On road	\$75,000	9	2040

Other Trails and Historic Transportation Resources:

A number of small sections of trails that will assist in interconnecting the trail and greenway system have not been listed. Portions of these will be constructed as major trails are completed and other sections will be completed as needs become evident. It is anticipated that additional complete streets type projects will be added to the plan as the City of Canton continues to develop their on-road system, which is now in the draft stage. The 12th Street Corridor and Mahoning BRT project will serve as the core of this system. Several on-road routes currently listed in the plan may be dropped from the Trail and Greenway Plan but could be retained as part of a marked on-road bikeway system. This will be determined as part of the planning for the Stark County bike-use mapping project.

It should be noted that the Buckeye Trail and North Country Trail (a congressionally-designated scenic trail) have routes through Stark County. These State and National trail routes mostly parallel the towpath trail, as well as the Ohio & Erie Canalway America's Byway (State and Federally designated), a driving route. The historic Lincoln Highway Scenic Byway (State designated) also crosses Stark County as part of US 30. Several original brick sections remain where road straightening projects have occurred. Other historic transportation routes include Native American routes such as the Great Trail, Muskingham Trail, and the Tuscarawas River and the Great Wagon Trail used by early settlers. These are resources that should not be overlooked for incorporation into planning and tourism and recreational development as well as historic preservation.

Tremendous progress has been made in developing pedestrian and bicycle facilities in Stark County over the past fifteen years. The benefits of incorporating pedestrian and bicycle facilities into an intermodal system have been demonstrated by the support of Stark County residents and elected officials as the trail system continues to grow throughout the county.

Freight

Logistics is necessary for a community to maintain and grow its commercial, retail and manufacturing industries. Without an efficient interplay between transporting raw materials and components, warehousing parts and products, and properly managing this process, a community and its businesses can find themselves at an economic disadvantage.

Major Highway Routes and Facilities- As identified in Access Ohio, Stark County has one National Highway Corridor (I-77 North of US 30), two State-wide Highway Corridors (I-77 South of US 30 and US 30 West of I-77) and two Statewide Secondary Highway Corridors (SR-21 and US 62). Interstate 77 is listed as a maritime freight highway corridor. Proposed projects to

alleviate shipping bottlenecks include the extension of US-30 and several bypasses. A perennial bottleneck due to low bridge clearance is currently being remediated in the City of Alliance with the lowering of Union Avenue (SR-183) under the Norfolk and Southern RR.

One intermodal facility is located in Stark County. The Neomodal terminal, although currently underutilized, offers a direct entry in-gate/out-gate, a 28 acre fully paved facility, three Mi-Jack overhead cranes, a high-speed receipt and dispatch system, computerized inventory control, electronic data interchange, 24-hour access, and Foreign Trade Zone designation. The facility is located on the regional Wheeling & Lake Erie Railway, which offers interconnection to the Canadian National Railway and others.

Two full service truck stops are located in Stark County, both on I-77 (one of which is currently being rebuilt). Numerous heavy truck sales and service locations exist adjoining I-77 and US 30.

Rail Shipment

Major routes and facilities include the Wheeling & Lake Erie Railway, with more than 800 miles of track stretching from Western Ohio into Pennsylvania and multiple class 1 connections (with trackage rights to Hagerstown, Maryland); The Norfolk Southern System with service to Cleveland, Zanesville, Toledo, Wheeling, West Virginia and Norfolk, Virginia; and the CSX Transportation System with routes both to Chicago through Pittsburgh, PA. The Ohio Freight Rail Choke Point Study identifies the W & LE Spencer to Brewster Line as a choke point due to the lack of a passing siding on the forty-mile single track line. Estimates in 2007 placed a 41.5 million dollar cost on adding a passing siding.

Air Shipment

Akron-Canton Airport is predominantly a passenger airport although several air cargo operations and charter companies service the airport. Recent runway extensions as part of the airports long range improvement plan have resulted in two runways approximately 7,600' long, allowing for larger aircraft operations. The Airport's implementation of its 2018 Plan has resulted in numerous other improvements including deicing, terminal, and safety systems. Akron-Canton Airport also services corporate fleets for business executives.

Maritime Shipment

Stark County has a long history in making connections with freight shipping between the Gulf of Mexico and the Atlantic seaboard. Although the connection directly via water was broken with the destruction of the Ohio & Erie Canal by the 1913 flood, it continues by land routes with I-77.

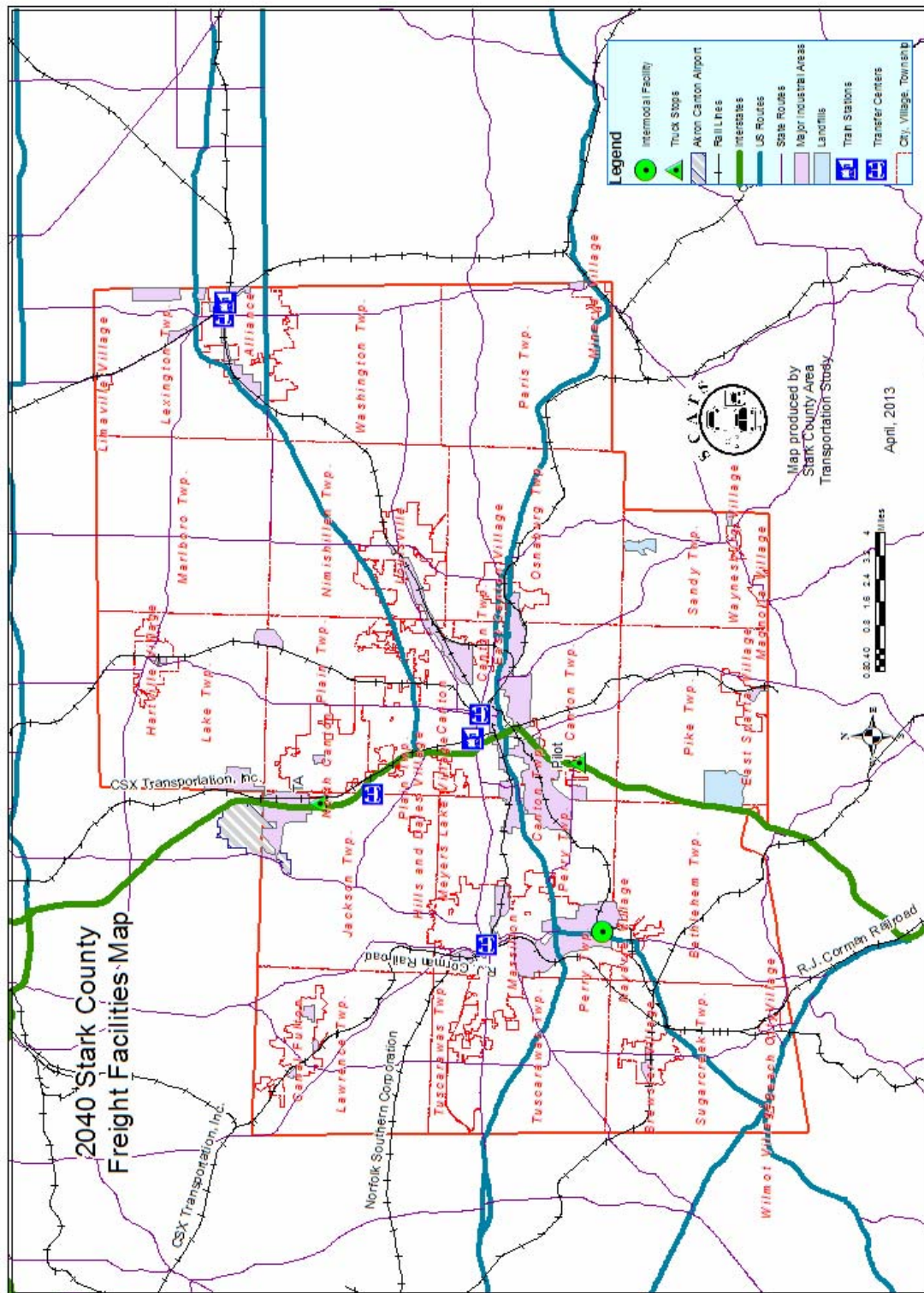
Interstate 77 serves as a major North/South highway corridor connecting Marine Highway 70 (the Ohio and Mississippi Rivers) and Marine Highway 90 (Lake Erie and the St. Lawrence Seaway).

Part of the impetus for extending SR-30 as a divided highway to SR-11 is the fact that it would serve as a major (and convenient) East/West Connection to the terminus of M-70 as evidenced by the Maritime Highway Map.

Map 5.3 Maritime Highway Corridors



Map 5.4 Stark County Freight Facilities



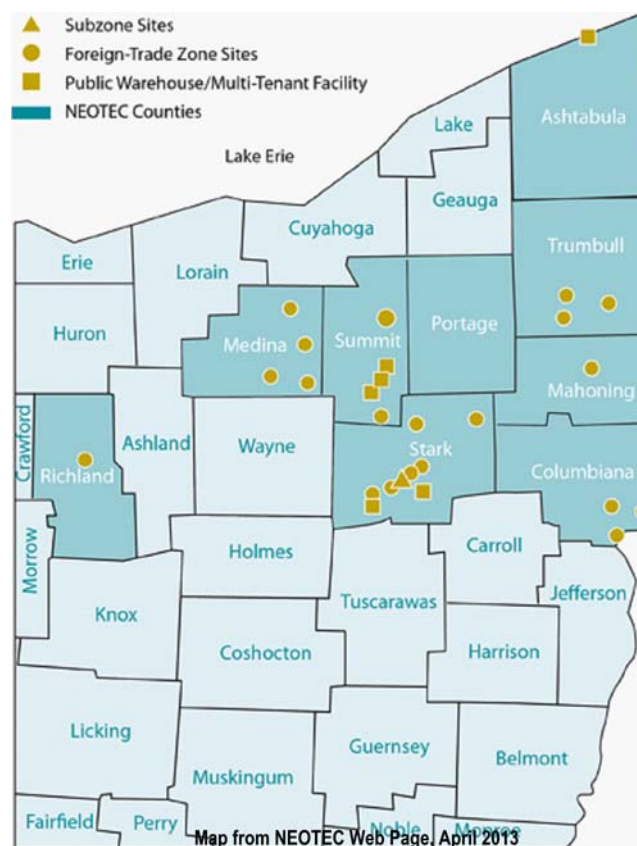
Port Authority and Foreign Trade Zone

Port Authorities are a tool that can assist in business development, offering innovative financing programs to create or retain jobs through the issuance of bonds. They can also create Foreign trade zones, which can be tremendous generators of shipments that benefit from coordination between various modes of transportation.

The Stark County Port Authority (SCPA) offers: Off-Balance Sheet and Synthetic Leases, Conduit Bond Issues and Qualified Small Issue Bonds for manufacturers and 501 (c) (3) bonds for nonprofit organizations and operates U.S. Foreign Trade Zone #181 in Stark County.

The Zone includes more than 800 acres of general purpose zone and sub-zone land which offers the following benefits: deferral, reduction, and/or elimination of duties; elimination of drawback; labor overhead and profit not calculated in dutiable sale of zone merchandise; excise tax reductions; inventory is tax exempt while stored in an activated FTZ and others. The Authority is part of the Northeast Ohio Trade and Economic Consortium.

Map 5.5 Foreign Trade Zones



CHAPTER 6 – FINANCIAL PLAN

Introduction

The *Financial Plan* demonstrates how the adopted transportation plan can be implemented, indicates resources from public and private sources available to carry out the plan and recommends any additional financing strategies for needed projects and programs. MAP-21 requires a financial plan that demonstrates fiscal constraint. A more detailed presentation of available resources is contained in **Appendix B FINANCIAL RESOURCES FORECAST** report.

Financial Resources

SCATS completed a Financial Resources Forecast in January, 2013. The forecast is based on the Stark County share of funding from a variety of sources. A complete analysis of available funding is shown in the *FINANCIAL RESOURCES FORECAST* in Appendix B of this document.

Fiscal Constraint

Year of Expenditure Costs

Fiscal constraint requires a comparison of the total cost of all planned projects against the total forecast of available funding. MAP-21 requires that a demonstration of fiscal constraint include estimates of project costs in terms of *Year-of-Expenditure (YOE) dollars* based on reasonable financial principles and information. Year of expenditure cost estimation requires a **current-year cost estimate**, the **expected year of project implementation** along with the application of an appropriate **rate of inflation** for the period of time leading up to implementation. With input from project sponsors, this plan utilizes the best estimate of present project costs.

Year of Project Implementation

The year in which a project is expected to be implemented has been estimated by SCATS staff with input from project sponsors. MAP-21 permits the financial plan to group project completion times into aggregate ranges or bands. This update of SCATS 2040 plan shows projects being completed within 4 time bands – 2014 to 2018, 2019 to 2020, 2021 to 2030, and 2031-2040.

Rate of Inflation

For the first time band (2014 – 2018), the cost of implementation for each project has been estimated at the year of expenditure cost for the year the project is expected to be built. As a result, the project costs shown in this time band have not been additionally inflated. Beyond 2018 in time bands 2019 thru 2020, 2021 thru 2030, and 2031 thru 2040 an annual compounded inflation rate of 2% has been applied to the current estimate. As a result, multipliers of 1.24 and 1.44 have been applied to the current project cost estimates for projects shown in the two outer time bands respectively.

Summary

SCATS is required to demonstrate the projects recommended in the 2040 plan are fiscally constrained, meaning that funding sources can be reasonably expected to be available to finance the project costs. The 2040 Plan for Stark County reflects the needs of the county through the year 2040, as local officials are able to perceive those needs at this time. Many of the recommendations will take many years to implement. This chapter presents a financial plan to implement the adopted Plan. Resources available to fund the Plan are difficult to predict. However, this financial plan presents a reasonable projection of funding sources and compares it to the transportation needs in order to achieve a fiscally constrained Transportation Plan.

APPENDICES

- A. Air Quality Conformity Analysis**
- B. Financial Resources**
- C. Environmental Justice**
- D. Environmental Mitigation, Analysis, and Consultation**
- E. SCATS Policy Committee Adoption Resolution Fiscal**

Appendix A: Air Quality Conformity Analysis

Introduction

The Clean Air Act Amendments of 1990 expanded transportation's role in contributing to national clean air goals. The 1990 amendments expand the definition of "transportation conformity" to:

Conformity to the (air quality implementation) plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and that such activities will not (i) cause or contribute to any new violations of any standards in any area, (ii) increase the frequency or severity of any existing violation of any standard in any areas, or (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

This document describes the conformity determination for Ozone, Volatile Organic Compounds (VOC), and fine Particulate Matter (PM_{2.5}) in the SCATS MPO area and demonstrates that the SCATS 2040 Transportation Plan conforms to the applicable standards throughout the planning period. The conformity determination was conducted in accordance with the *Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs and Projects Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act*, 40 CFR Parts 51 and 93, issued November 24, 1993, and Final Rules adopted May 6, 2005 (70 FR 24280), which incorporated the Final Conformity Rule of July 1, 2004 (69 FR 4004) and in accordance with the Ohio State Transportation Conformity Rules, Ohio Administration Code Part 3745-1-1-01 through 20, issued August 21, 1995 and amended Spring 1997.

In order to determine conformity, the SCATS 2040 Transportation Plan tests must meet the following requirements:

- *Must be based on the latest planning assumptions*
- *Must use the latest emissions model*
- *Must include interagency consultation*
- *Must provide for Public Involvement*
- *Must show the plan meets the emissions budget test*
- *Must include a MPO Board conformity determination resolution*

Nonattainment Area Designation

PM_{2.5} – The Canton/Massillon Metropolitan Statistical Area (MSA), Ohio was classified as nonattainment for PM_{2.5} in the Federal Register January 5, 2005. Although the MSA area also includes Carroll County, OEPA (Ohio Environmental Protection Agency) and USEPA concurred that only Stark County is designated as the nonattainment area within the MSA as Carroll County is rural in nature with a population of less than 30,000. In March, 2007, SCATS showed that it was in conformity for PM_{2.5} based on the permitted no-greater-than-2002 baseline test. Since then, new standards have been adopted for PM_{2.5}, once again classifying Stark County as nonattainment.

Ozone - As part of the 1990 CAA Amendments re-evaluation, Stark County was designated as Unclassifiable/Attainment for the one-hour ozone standard pursuant to the CAA and therefore, has not previously been subject to nonattainment area rule-makings. As a result of the 2004 ozone designations, U.S. EPA designated Stark County basic nonattainment and subject to the eight-hour ozone requirements, including development of a plan to reduce volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) emissions and a demonstration that the area will meet the federal eight-hour air quality standard for ozone by June 2009. A Redesignation Plan has been submitted. The 8-Hour Redesignation budgets were approved in June of 2007.

Interagency Consultation and Conformity Process

Interagency Consultation was achieved via a conference call and e-mails between USEPA, Ohio EPA, FHWA, ODOT and SCATS.

Based on those consultations, the following was established:

The horizon date for the plan is to be 2040. SCATS is updating its travel demand model variables, through the 2040 Plan horizon year, in compliance with the latest planning assumptions requirements. SCATS will complete its variables update by Feb. 10, 2013. “Mobile” software could be used provided the modeling process was to begin prior to March 3rd. SCATS staff will provide necessary information for modeling (conformity analysis networks reflecting the T-Plan regionally significant project list) to ODOT by February 17th.

It was determined that a final draft of the plan would be available by April with final public involvement, inclusive of the air quality conformity documentation and results, in early May and SCATS Policy Committee consideration of the Plan at May Meeting. The Plan Update, conformity documentation, and SCATS Policy Board Transportation Plan and conformity determination resolution will be submitted to the federal review agencies on May 13, 2013.

The 2018 budget established for 8-hour ozone could be used as the standard to compare ozone emissions in years 2018, 2020, 2030 and 2040. For PM_{2.5}, analysis years 2018, 2020, 2030 and 2040 will be compared to the 2009 budget.

Latest Planning Assumptions

For this analysis, the latest planning assumptions available for the Canton region will be used. The Canton travel demand model underwent a major upgrade in 2007 and this model was used for the analysis. The model is a traditional four-step model that includes trip generation, trip distribution, mode choice, and traffic assignment. Upgraded model components that were not in the previous model include: household cross-classification, separate truck assignment, non-bus transit modes, and peak period assignments. The 2000 base year was established to take advantage of census data and new roadside origin-destination surveys that were taken at the Stark County line. The model was calibrated to replicate 2000 traffic counts, and was validated to meet the standards of ODOT’s Traffic Assignment Procedures manual.

Employment variables are based on the 2010 update of the Quarterly Census of Employment and Wages (QCEW) data.

Current and Future Populations were based on 2010 Census data. The RPC sub-allocated the projections to the Traffic Analysis Zone (TAZ) level.

Networks

SCATS's 2010 network represents the highway network as it existed in 2010. It was created in anticipation of the 2010 model update. The 2010 network was used as a basis for the networks created for this analysis. SCATS's Long Range Plan listing of projects and SCATS's TIP were used to create the 2018, 2020, 2030, and 2040 networks.

Independent Variables

Independent variables (land use/socio-economic data) as provided by SCATS were used to generate new traffic assignments for each analysis year 2018, 2020, 2030, and 2040. The variable data for the intermediate years (2018, 2020, and 2030) were created by using interpolation between the 2010 base year and the final year of the LRP.

Latest Emissions Modeling

Emissions data for this conformity analysis were generated using US EPA MOBILE6.2 emission factors.

Temperature data for MOBILE6.2 emission factors used data from the Akron Canton Airport for the Canton nonattainment area conformity process.

Annual PM_{2.5} emissions data were established using the single season methodology. The standard emissions modeling routines establish daily pollutant burdens. Annual direct PM_{2.5} and NO_x precursor emissions for the PM_{2.5} conformity tests were established by multiplying the daily model results by 365.

PM_{2.5} conformity will be established based on the *no-greater-than-2018* baseline tests in CFR 93.119.

Public Involvement Process

SCATS sought public comments on the 2040 Transportation Plan development consistent with the adopted 2006 "Public Involvement Process" manual, as follows: SCATS scheduled three meetings for public involvement – January 22nd in Louisville, January 23rd in the Canton and January 24th from in Massillon to provide an opportunity for the public to provide input regarding transportation issues and the preparation of the SCATS 2040 Long Range Transportation Plan. It is anticipated that a draft copy of the Plan including results of the air-quality conformity analysis will be available for review by the public and the SCATS Policy Committee by the April 2013 meeting of the SCATS Policy Committee.

Plan Schedule

Approval of the updated SCATS Long Range Plan by the Policy Board is scheduled to occur in May, 2013. It is anticipated that the draft Plan update, including air-quality conformity documentation, will be submitted to federal agencies by May 13th, 2013. The updated US DOT SCATS 2040 Transportation Plan conformity determination is required by June 15, 2013.

Canton 2030 Transportation Plan Update Conformity Analysis Summary

Ozone

Attainment status: 8-Hour Ozone Maintenance Area – Re-designation Plan approved effective 6/15/07

Geography: Stark County, Ohio

Conformity Tests: 8-Hour budget tests of SCATS 2040 Transportation Plan/TIP analysis year networks

Analysis Years: 2018 budget year
2020 Interim year
2030 Interim year
2040 Plan horizon year

SCATS Ozone Air Quality Analysis

Budget	Year	VOC (tons/day)	NOX (tons/day)
	2018	5.37	7.08
	2018	4.03	5.13
	2020	3.81	4.60
	2030	3.66	3.56
	2040	3.91	4.04

From Mobile 6.2 run by ODOT Central Office March 1st, 2013

PM_{2.5}

Attainment status: PM_{2.5} Nonattainment area
Geography: Stark County, Ohio
Conformity Tests: 2009 baseline interim budget tests of SCATS 2040 Transportation Plan/TIP analysis year networks
Analysis Years: 2009 budget year
2018 Interim year
2020 Interim year
2030 Interim year
2040 Plan horizon year

SCATS PM_{2.5} Air Quality Analysis

Budget	Year	Direct PM (tons/year)	NOX (tons/year)
	2009	88.38	5103.36
	2018	45.59	1770.58
	2020	43.65	1576.62
	2030	44.09	1187.78
	2040	48.76	1364.92

From Mobile 6.2 run by ODOT Central Office March 1st, 2013

The conformity analysis highway networks and budget test results are as follows:

- 2009 Budget year: The annual total budget for **PM_{2.5}** is **88.38** tons and for **NO_x Precursors** is **5103.36** tons.
- 2018 Budget year: The annual total budget for **VOC** is **1960** tons and for **NO_x** is **2084** tons. This represents the regional highway network that will be in place by the end of 2018. The annual total for **VOC** was **1470** tons and for **NO_x** was **1873** tons. The annual total for **PM_{2.5}** was **45.59** tons and for **NO_x Precursors** was **1770.58** tons.
- 2020 Network: This represents the regional highway network that will be in place by the end of 2020. The annual total for **VOC** was **1390** tons and for **NO_x** was **1681** tons. The annual total for **PM_{2.5}** was **43.65** tons and for **NO_x Precursors** was **1576.62** tons.
- 2030 Network: This is an interim analysis year to meet the requirement that analysis years must be no more than ten years apart. The network includes the 2020 network plus regionally significant projects that are expected to be open to traffic by the end of 2030. The annual total for **VOC** was **1337** tons and for **NO_x** was **1301** tons. The annual total for **PM_{2.5}** was **44.09** tons and for **NO_x Precursors** was **1187.78** tons.

- 2040 Plan Horizon Year Network: This represents the completed Plan network. The annual total for **VOC** was **1428** tons and for **NO_x** was **1475** tons. The annual total for **PM_{2.5}** was **48.76** tons and for **NO_x Precursors** was **1364.92** tons.

Projects

The following table shows all non-exempt 2040 Long-Range Plan projects and the year by which they will be built.

Name	Route	From	To	Type Work	Year
Cherry St	SR 93	At Locust St		Intersection Widening	2017
12th St NW	CR 240	Monument Dr	Maple Ave	Roadway improvement and Bridge Rehab	2017
Mahoning Road	SR 153	Maple Ave	Grace Ave	Streetscape, Roadway and Intersection Improvements	2017
Mahoning Road	SR 153	Grace Ave	Harmont Ave	Streetscape, Roadway and Intersection Improvements	2017
Beeson St	CR 41	At Freshley Ave		Roundabout	2017
Everhard Rd	CR 98	At Whipple Ave		Widen to 5 or more Lanes	2017
Fohl St	CR 252	At Shepler Church Ave		Roundabout	2017
Paris Ave	CR 44	At Meese Rd / Easton St		Roundabout	2017
Werner Church	CR 190	At Applegrove St & Middlebranch Ave		Bridge Replacement and Roadway Improvement	2017
Market Ave	SR 43	55th St	Applegrove St	Widen to 4 lanes	2017
Edison St	SR 619	Kaufman Ave	Milan St	Widen to 3 lanes, intersection improvements	2017
Cleveland Ave	SR 800	43rd St	I 77	Widen for TWLTL thru section	2017
Richville Dr	CR 248	Nave St	Southway St	Minor widening resurfacing, shoulders & ditches	2020
Hankins St	CR 240	Wales Ave	Louisa Marie Ave	2 Lane Improvement	2020
Lincoln Way E	SR 172			Widening	2020
Wales Rd	SR 241	Lincoln Way E	Hills & Dales Rd	2 lanes + Turn lane	2020
Wales Rd	SR 241	At Lake Ave		Upgrade intersection	2020
SR 241/SR 172	SR 241			Signalization	2020
Walnut Rd	CR 248	Southway St	16th St SE	2 Lane improvement	2020
Portage St/Charlotte St	CR 228	Lindy Lane	N Main St	Improvements	2020
Pittsburg Ave	CR 216	Applegrove St	Shuffel St	Widen, turn lane, curb, storm	2020
W Maple St	CR 86	Ream Ave	Main St	Widening, new signal	2020
Edison St	SR 619	At McCallum Ave		Construct Roundabout	2020
Fulton Dr	SR 687	0.28 miles E of SR 241	Brunnerdale Ave	Widen to 5 lanes	2020
20th St NW	TR 221	At Lakeside		Intersection Safety Improvement	2020
Main St Connector	TR 431	Old Main	New Main St at Sawburg	New 2-lane connector	2030
11th St S	CR 247	at Market Ave		Roundabout	2030
Harmont Ave	CR 170	SR 153	US 62	Widen to 4 lanes	2030
The O'Jays/Madison	MR 670	The O'Jays	Madison Ave	Realignment	2030
Applegrove St	CR 190	Whipple Ave	Frank Ave	Widen to 5 lanes	2030
Columbus Rd	CR 67A	At Beeson St & Reeder Ave		Roundabout	2030
Fohl St	CR 252	Navarre Rd	I-77	2 Lane improvement	2030
Frank Ave	CR 229	Fulton Dr	University St	Widen to 3/4 lanes + turn lanes at ints	2030
Frank Ave	CR 229	Applegrove St	Shuffel St	Widen to 5 lanes	2030
Jackson Ave	TR 242	Richville Dr	Lincoln Way	2 Lane/RR Bridge	2030
Perry Dr	CR 223	at Tuscarawas St		Intersection and Widen	2030
Portage-Mega Connector		Portage St	Mega St	New road	2030
Trump Ave	CR 170	Lincoln St	SR 153	Widen to 4 lanes	2030
Whipple Ave	CR 219	Southway St	13th St	2-lane/RR bridge	2030
Whipple Ave	CR 214	Applegrove St	Shuffel St	Widen to 5 lanes	2030
Navarre Rd	CR 511	SR 21	1 Mile E of SR 21	Widen to 3 lanes	2030
Sterilite St Extension		Navarre Rd	Fohl St	New 2-lane connector	2030
Tremont Ave	MR 1448	at Main Ave		Roundabout	2030
Wales Rd	SR 241	at Hills & Dales Rd		Roundabout	2030
I-77	I-77	US 30 Interchange		Interchange Safety & Capacity improvements	2030
Wales Ave	SR 241	Hills&Dales Rd	Portage St	Widen to 4 lanes	2030
Wales Ave	SR 241	Portage St	Summit Co Line	Widen to 4 lanes	2030
Market Ave	SR 43	Applegrove St	Mt Pleasant St	Widen to 4 lanes	2030
Edison St	SR 619	Cleveland Ave	SR 43 North	Widen to 4 lanes	2030
US 30	US 30	Trump Ave	SR 44	New 4-Lane Freeway	2030
US 30 Connector	US 30	SR 44 Interchange	SR 172 at Miday	New 2-lane connector	2030

Name	Route	From	To	Type Work	Year
Canal Fulton Connector		Butterbridge Rd	Locust St	New 2-lane connector	2040
Mahoning Extension	TR 1	Patterson Ave	Armour St	New 2-lane connector	2040
Orion St	TR 217	Pittsburg Ave	Cleveland Ave	3-lane Widening	2040
Pittsburg	CR 216	Shuffel/Orion		Intersection Improvement	2040
Shuffel St	CR 230	Frank Ave	SR 241	3-lane Widening	2040
Strausser St	CR 231	Frank Ave	SR 241	3-lane Widening	2040
Strip Ave	CR 224	Portage St	Applegrove	3-lane Extension	2040
Trump Ave	CR 170	SR 43	New US 30	2 Lanes / new connector	2040
Jackson Ave	TR 242	12th St NW	Perry Dr	Widen to 3 lanes	2040
Reno Dr	TR 185	SR 44	Nickleplate Ave	New Facility	2040
SR 44 Bypass	SR 44	SR 153	Frana Clara St	2-lane bypass / RR Bridge	2040
Portage St	CR 228	Pittsburg Ave	Charlotte St	3-lane Widening	2040
US 30	US 30	SR 44	SR 183	Super 2 lane	2040
US 30	US 30	SR 183	East Rochester	Super 2 lane	2040
US 62	US 62	Market Ave	Columbus Rd	Major Reconst / Access Control	2040
US 62	US 62	At Harmont		Grade Separation	2040
US 62	US 62	SR 225	Salem	New 4-Lane Freeway	2040

Final Conformity Determination

As described in this document, the conformity determination analysis was conducted consistent with the Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs and Projects Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act, 40 CFR Parts 51 and 93, issued November 24, 1993 and Final Rules adopted May 6, 2005 (70 FR 24280), which incorporated the Final Conformity Rule of July 1, 2004 (69 FR 4004).

Appendix B: Financial Resources Forecast

Introduction

This document was created as a planning tool to estimate the availability of funding for future transportation projects in Stark County and to demonstrate compliance with Federal Highway Administration requirements for financial resources forecasting. This report will be used with the *Stark County Area Transportation Study Year 2040 Transportation Plan* to demonstrate that the Plan is fiscally constrained in year of expenditure dollars.

Federal Legislation

The history of federal legislation that funds highway projects illustrates the advances made in the planning process required to effectively utilize those funds. Each Federal authorization and reauthorization bill has included expanded requirements for planning how those dollars are spent. As competition for funding grows and costs escalate, it becomes increasingly imperative to effectively utilize the funds. The major funding acts and requirements include:

- **The *Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)*.** This legislation changed federal transportation philosophy from one of stressing construction of new roadways by including an emphasis on an increased use of mass transit, making existing roadways more efficient, mitigating congestion, mandating more planning at the state and metropolitan level, and encouraging alternative forms of transportation such as pedestrian and bicycle facilities. ISTEA provided flexibility to state and local officials in choosing among highway, transit, and other transportation alternatives and expanded the type of projects and activities that were eligible for funding, created new highway funding classifications, and changed funding participation rates. ISTEA also required a financially constrained plan.
- **The *Transportation Equity Act for the 21st Century (TEA-21)*,** enacted June 9, 1998, continued trends established by *ISTEA* and, with technical corrections included in the TEA-21 Restoration Act enacted July 22, 1998, added additional requirements to strengthen planning efforts. Tea-21 required the development of a financial plan to identify funding sources and to demonstrate the ability for projects identified in the plan to be completed.
- **The *Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU)*** was signed into law on August 10, 2005 and included a number of changes including emphasizing planning requirements for environmental consultations, congestion and safety planning, among others. The most relevant change regarding fiscal planning and forecasting was the requirement to account

for inflation and ensure that the plan is fiscally constrained by showing projects costs and income in “**year of expenditure dollars**”.

- ***Moving Ahead for Progress in the 21st Century (MAP-21)***, signed into law on July 6, 2012, MAP-21 will provide funding for transportation improvements until September 30, 2014. MAP 21 reauthorizes the Federal -aid highway program at levels equal to current funding levels plus inflation over two fiscal years, eliminates earmarks and consolidates the number of core federal programs to four – National Highway Performance Program, Transportation Mobility Program (similar to current Surface Transportation Program), Highway Safety Improvement Program (HSIP) and Congestion Mitigation and Air Quality Program (CMAQ).

Forecast Methodology and Assumptions

The *Financial Resources Forecast* projects available resources that will fund transportation improvements in the SCATS area through fiscal year 2040. Accurate financial forecasting requires the analysis of historic trends and assumptions regarding future events. The following assumptions will be applied to this forecast:

- Forecasted revenues are based on projected historical data
- Federal funding through the Highway Trust Fund will remain viable and will continue over the forecast period
- ODOT will continue to allocate funds with the same methodology used in the past
- Local funding to meet match requirements will continue to be made available

Federal Funding Categories

National Highway System (NHS)

The NHS is made up of approximately 160,000 miles of the most significant roads in the nation. This includes the existing interstate system (Eisenhower Interstate System), principal arterials in urban and rural areas that provide intermodal connections, the Strategic Highway Network (STRAHNET) and its major connectors, and other major intermodal connectors and connections between these systems. Funding participation rates for NHS projects are 80% federal and 20% state and/or local. Some safety improvements qualify for 100% funding.

Interstate Maintenance (IM)

The Interstate System retains a separate identity within the NHS. It consists only of routes with the "Interstate" designation. To ensure continued maintenance and improvement of this system, Congress first established the IM program under ISTEA. The US Department of Transportation (USDOT) distributes funds to states based on lane-miles open to traffic, vehicle-miles traveled, and contributions to the Highway Account of the Highway Trust Fund attributed to commercial vehicles. The funding participation

rate for IM projects is 90% federal. Some safety improvements qualify for 100% funding.

Surface Transportation Program (STP)

Highways eligible for STP funding include highways having a federal functional classification of collector or higher in urbanized areas and major collector or higher in rural areas. STP funds may also be used for other modal projects such as capital transit projects, commuter rail, bus terminals and facilities, carpool projects, traffic monitoring, regional planning, advanced truck stop electrification systems, improvements to high congestion/accident rate intersections on the federal-aid highway system, bicycle and pedestrian facilities and some environmental restoration and pollution abatement.

ODOT retains a portion of the remaining STP funds and sub allocates the balance to the MPOs and the County Engineers (through the County Engineers Association of Ohio).

Funding participation rates for STP projects are 80% federal and 20% state and/or local (high occupancy lanes can qualify for up to 90% federal). Some safety improvements qualify for 100% funding.

Transportation Alternatives (TA)

Transportation Alternatives (TA) represent a funding source created in MAP-21 and it replaces the former Transportation Enhancements program. TA funding consolidates the 12 programs funded through the Transportation Enhancements in to 6 programs to fund non-vehicular transportation projects. TA funds are available at 80% federal and 20% local.

Highway Bridge Program (BR)

Under this program, bridges over twenty feet in length on public roads are eligible to receive funding for replacement, rehabilitation, or systematic preventive maintenance. USDOT distributes these funds to states partially based on deck area and requires that 15% of the funds be used on off-system routes. Ohio distributes BR funds through the following programs: City Bridge, Local Major Bridge, County Bridge, State Bridge and Major High Cost Bridge programs. The funding participation rate for projects using BR funding is 80% federal and 20% state and/or local except for bridges on the Interstate System which have a 90% federal share.

Congestion Mitigation/Air Quality (CMAQ)

CMAQ funding was a new funding category established by ISTEA and is intended to lessen congestion and air pollution. Both highway and transit projects and programs are eligible for CMAQ funds if they meet specific criteria and have documented emission reductions associated with them. The funding participation rates for CMAQ projects are

80% federal and 20% local except for projects on the Interstate System which have a 90% federal share. Certain other activities, including carpool/vanpool projects, priority control systems for emergency vehicles and transit vehicles and traffic control signalization receive a Federal share of 100 percent.

Highway Safety Improvement Program (HSIP)

This is a category implemented by SAFETA-LU that replaced the previous Hazard Elimination and Safety Program that was funded through a set-aside percentage of STP monies.

Funds for this program, once the Railway-Highway Crossing program funds are set aside, are distributed based on lane miles of Federal-aid highways, vehicle miles traveled on Federal-aid highways and number of fatalities on the Federal-aid system.

The funding participation rates for HSIP projects are 90% federal except for certain safety improvements listed in 23 USC 120(C) which are eligible for 100%.

FTA Section 5307 Urbanized Area Formula Program

FTA section 5307 funds are available to urbanized areas for transit capital and operating assistance based on urbanized area population. Eligible applications include planning, engineering design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities. The funding rate for 5307 funds is 80%.

FTA Section 5309 Bus and Bus Facilities Program

FTA section 5309 funds can be used for capital projects including the purchase of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, transportation centers, acquisition of replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities, and miscellaneous equipment. The funding rate for 5309 funds is 80%.

FTA Section 5310 Specialized Transportation Program

This program is managed by the ODOT Office of Transit, which calls it the Specialized Transportation Program. Grants are available for the purchase of vehicles, mobility management services, or other transportation related equipment to support transportation services for the elderly and people with disabilities where existing transportation is unavailable, inappropriate, or insufficient. In the past these funds were allocated to each MPO but are now distributed state-wide on a competitive basis.

Revenue Sources for Transportation Improvements

Federal funds made available for transportation funding comes mostly from the levied federal fuel tax of 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel fuel.

State Funds - In addition to the federal fuel tax, the state of Ohio levies an additional 28.0 cents per gallon tax, 15.3 cents of which is utilized by ODOT (2.38 cents for debt service and 12.92 cents for operating and capital expenditures). The majority of the remaining 12.9 cents per gallon is allocated in varying amounts to counties, townships, municipalities and the Ohio Public Works Commission (OPWC). Local government agencies and OPWC utilize the funds for improvements to the transportation system at the local level both as match for federal funds and as the primary funding source.

Local Funds - Utilizing federal transportation funding to build and maintain a viable transportation system requires that funds be made available at the local level to provide the required match for federal funding. However, in addition to providing a source to match federal funding, local funds are routinely utilized as the sole source to fund local projects. Local funding can come from local taxes and fees in addition to other sources such as license plate and local permissive fees which are targeted for transportation improvements. In addition to passenger fares, SARTA's local funding relies on a voter approved transit dedicated 0.25% county sales tax. The latest renewal of the transit dedicated sales tax, approved in 2011, provides approximately \$12 million annually.

Forecasting Future Revenue and Costs

Perhaps the primary challenge when planning for major transportation improvements over the next 28 years is identifying the future cost to build projects and the amount of funding that will be available. As identified earlier, future revenues are projected based on historical data. **Table 1** shows a history of federal, state and local funds applied to highway projects in the SCATS area over a ten year period. Targeted one time spending such as earmarks and state and federal stimulus funding are excluded from the table. **Table 2** displays a history of spending by SARTA over a ten year period. The average value of the historical data will provide a base level of spending to forecast estimated spending over the 28 year planning period from 2013 to 2040.

Table 1 – SCATS Area Highway Spending History

Table 1 - Historical Highway Spending						
Year	Federal	State of Ohio		Local		
	(Excluding ARRA and Earmarks)	ODOT	OPWC (Fuel Tax & Bonds)*	License & Permissive Fees	Fuel Tax	Total License Fees and Local Fuel Tax
2003	\$27,957,800	\$1,733,200				
2004	\$46,456,360	\$2,817,840				
2005	\$49,986,314	\$691,000	\$7,754,000			
2006	\$46,064,200	\$2,007,400	\$6,470,000			
2007	\$20,604,200	\$3,932,400	\$6,261,000			
2008	\$20,747,100	\$4,548,000	\$7,457,000	\$11,119,169	\$2,415,819	\$13,534,988
2009	\$20,156,900	\$4,162,800	\$6,269,000	\$11,165,696	\$2,331,703	\$13,497,399
2010	\$7,108,300	\$565,000	\$6,746,000	\$11,333,653	\$2,366,745	\$13,700,398
2011	\$8,103,400	\$348,000	\$6,951,000	\$11,256,733	\$2,310,207	\$13,566,940
2012	\$15,806,400	\$2,685,000	\$5,236,200	\$11,442,606	\$2,290,682	\$13,733,288
Average	\$26,299,097	\$2,349,064	\$6,643,025	\$11,263,571	\$2,343,031	\$13,606,603

*OPWC year 2008 and 2009 stimulus funds are excluded from average calculation

Table 2 – Transit (SARTA) Spending History

SARTA Spending (2002 - 20011)		
Year	Federal	Local
2002	\$6,913,000	13,891,000
2003	\$9,718,000	13,847,000
2004	\$4,414,000	12,583,000
2005	\$3,942,000	14,151,000
2006	\$3,804,000	13,759,000
2007	\$4,748,000	13,273,000
2008	\$4,815,000	13,035,000
2009	\$3,444,000	13,268,000
2010	\$4,781,000	12,724,000
2011	\$967,000	11,745,000
Average	\$4,754,600	13,227,600

The SCATS 2040 Long Range Plan future highway and transit revenues can be determined by projecting the average historical federal, state and local information identified in Tables 1 and 2. In each instance, an average historical spending amount has been established. This average amount provides a base for projecting expected spending into the future using an appropriate estimated growth rate.

Determining the growth rate for transportation funding over the 28 year planning period of the Long Range Plan requires researching possible effects on growth and the application of a rate that is most appropriate. For this analysis, two growth rates were applied as determined appropriate. For federal, ODOT and SARTA transit federal and local funding; the Consumer Price Index was applied. In the near term from 2013 to 2015 this rate varies from 1.9 to 2.0 percent and over the remaining of the planning period the rate is estimated to be 2.1%. For state and local highway funding sources a more moderate rate of 0.5% was applied because the sources do not provide the expectation for growth over time. **Table 3** on page 8 displays estimated projected highway funding and **Table 4** on page 9 shows projected Transit funding for the SCATS over the 2040 long ranged planning time frame.

Summary and Conclusion

Planning for transportation improvements over a 28 year horizon requires assumptions as to the continued availability and amount of funding as well as the identification of the needs beyond the short term. This analysis estimates the funding that will be available to meet the transportation needs for the planning period extending through fiscal year 2040. To do so, assumptions were made for available funding over the planning period. The results of this projection will be applied to the transportation needs over the same period to produce a fiscally constrained list of improvements in the SCATS planning area through the year 2040.

Table 3 – Projected Highway Funding

Year	Federal	Growth Rate	State of Ohio				Local	
			ODOT	Growth Rate	OPWC	Growth Rate	Fuel Tax & License Fees	Growth Rate
Average (2003-2012)	\$26,299,097		\$2,349,064		\$6,643,025		\$13,606,603	
2013	\$26,798,780	1.9%	\$2,393,696	1.9%	\$6,643,025	0.5%	\$13,606,603	0.5%
2014	\$27,334,756	2.0%	\$2,441,570	2.0%	\$6,676,240	0.5%	\$13,674,636	0.5%
2015	\$27,881,451	2.0%	\$2,490,402	2.0%	\$6,709,621	0.5%	\$13,743,009	0.5%
2016	\$28,466,961	2.1%	\$2,542,700	2.1%	\$6,743,169	0.5%	\$13,811,724	0.5%
2017	\$29,064,768	2.1%	\$2,596,097	2.1%	\$6,776,885	0.5%	\$13,880,783	0.5%
2018	\$29,675,128	2.1%	\$2,650,615	2.1%	\$6,810,770	0.5%	\$13,950,187	0.5%
2019	\$30,298,305	2.1%	\$2,706,278	2.1%	\$6,844,824	0.5%	\$14,019,938	0.5%
2020	\$30,934,570	2.1%	\$2,763,109	2.1%	\$6,879,048	0.5%	\$14,090,037	0.5%
2021	\$31,584,196	2.1%	\$2,821,135	2.1%	\$6,913,443	0.5%	\$14,160,488	0.5%
2022	\$32,247,464	2.1%	\$2,880,379	2.1%	\$6,948,010	0.5%	\$14,231,290	0.5%
2023	\$32,924,661	2.1%	\$2,940,867	2.1%	\$6,982,750	0.5%	\$14,302,446	0.5%
2024	\$33,616,079	2.1%	\$3,002,625	2.1%	\$7,017,664	0.5%	\$14,373,959	0.5%
2025	\$34,322,016	2.1%	\$3,065,680	2.1%	\$7,052,752	0.5%	\$14,445,828	0.5%
2026	\$35,042,779	2.1%	\$3,130,059	2.1%	\$7,088,016	0.5%	\$14,518,058	0.5%
2027	\$35,778,677	2.1%	\$3,195,790	2.1%	\$7,123,456	0.5%	\$14,590,648	0.5%
2028	\$36,530,029	2.1%	\$3,262,902	2.1%	\$7,159,073	0.5%	\$14,663,601	0.5%
2029	\$37,297,160	2.1%	\$3,331,423	2.1%	\$7,194,869	0.5%	\$14,736,919	0.5%
2030	\$38,080,400	2.1%	\$3,401,383	2.1%	\$7,230,843	0.5%	\$14,810,604	0.5%
2031	\$38,880,088	2.1%	\$3,472,812	2.1%	\$7,266,997	0.5%	\$14,884,657	0.5%
2032	\$39,696,570	2.1%	\$3,545,741	2.1%	\$7,303,332	0.5%	\$14,959,080	0.5%
2033	\$40,530,198	2.1%	\$3,620,201	2.1%	\$7,339,849	0.5%	\$15,033,875	0.5%
2034	\$41,381,332	2.1%	\$3,696,226	2.1%	\$7,376,548	0.5%	\$15,109,045	0.5%
2305	\$42,250,340	2.1%	\$3,773,846	2.1%	\$7,413,431	0.5%	\$15,184,590	0.5%
2036	\$43,137,598	2.1%	\$3,853,097	2.1%	\$7,450,498	0.5%	\$15,260,513	0.5%
2037	\$44,043,487	2.1%	\$3,934,012	2.1%	\$7,487,751	0.5%	\$15,336,816	0.5%
2038	\$44,968,400	2.1%	\$4,016,626	2.1%	\$7,525,189	0.5%	\$15,413,500	0.5%
2039	\$45,912,737	2.1%	\$4,100,976	2.1%	\$7,562,815	0.5%	\$15,490,567	0.5%
2040	\$46,876,904	2.1%	\$4,187,096	2.1%	\$7,600,629	0.5%	\$15,568,020	0.5%
Totals	\$1,005,555,835		\$89,817,341		\$199,121,499		\$407,851,421	

Table 4 – Projected Transit Funding

Transit Funding Projections						
Year	Federal	Growth Rate	Local	Growth Rate	Total	Inflation Factor
Average (2002 - 2011)	\$4,754,600		\$13,227,600		\$17,982,200	
2012	\$4,844,937	1.9%	13,478,924	1.9%	18,323,862	1.02
2013	\$4,936,991	1.9%	13,735,024	1.9%	18,672,015	1.04
2014	\$5,035,731	2.0%	14,009,724	2.0%	19,045,455	1.06
2015	\$5,136,446	2.0%	14,289,919	2.0%	19,426,365	1.08
2016	\$5,244,311	2.1%	14,590,007	2.1%	19,834,318	1.10
2017	\$5,354,442	2.1%	14,896,397	2.1%	20,250,839	1.13
2018	\$5,466,885	2.1%	15,209,222	2.1%	20,676,107	1.15
2019	\$5,581,689	2.1%	15,528,615	2.1%	21,110,305	1.17
2020	\$5,698,905	2.1%	15,854,716	2.1%	21,553,621	1.20
2021	\$5,818,582	2.1%	16,187,665	2.1%	22,006,247	1.22
2022	\$5,940,772	2.1%	16,527,606	2.1%	22,468,378	1.25
2023	\$6,065,528	2.1%	16,874,686	2.1%	22,940,214	1.28
2024	\$6,192,904	2.1%	17,229,054	2.1%	23,421,959	1.30
2025	\$6,322,955	2.1%	17,590,865	2.1%	23,913,820	1.33
2026	\$6,455,737	2.1%	17,960,273	2.1%	24,416,010	1.36
2027	\$6,591,308	2.1%	18,337,438	2.1%	24,928,746	1.39
2028	\$6,729,725	2.1%	18,722,525	2.1%	25,452,250	1.42
2029	\$6,871,050	2.1%	19,115,698	2.1%	25,986,747	1.45
2030	\$7,015,342	2.1%	19,517,127	2.1%	26,532,469	1.48
2031	\$7,162,664	2.1%	19,926,987	2.1%	27,089,651	1.51
2032	\$7,313,080	2.1%	20,345,454	2.1%	27,658,534	1.54
2033	\$7,466,654	2.1%	20,772,708	2.1%	28,239,363	1.57
2034	\$7,623,454	2.1%	21,208,935	2.1%	28,832,389	1.60
2305	\$7,783,547	2.1%	21,654,323	2.1%	29,437,870	1.64
2036	\$7,947,001	2.1%	22,109,064	2.1%	30,056,065	1.67
2037	\$8,113,888	2.1%	22,573,354	2.1%	30,687,242	1.71
2038	\$8,284,280	2.1%	23,047,394	2.1%	31,331,674	1.74
2039	\$8,458,250	2.1%	23,531,390	2.1%	31,989,639	1.78
2040	\$8,635,873	2.1%	24,025,549	2.1%	32,661,422	1.82
Totals	\$190,092,933		528,850,645		718,943,578	

Appendix C Environmental Justice Assessment

Introduction

Recognizing that the impacts of federal programs and activities may raise questions of fairness to affected groups, President Clinton, on February 11, 1994, signed Executive Order 12898: Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations

The U.S. EPA's Office of Environmental Justice defines EJ as follows: "The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies."

While not a new requirement, EJ amplifies the provisions found in the three-decade old Title VI of the Civil Rights Act of 1964. Title VI of the Civil Rights Act of 1964 prohibits discriminatory practices in programs and activities receiving federal funds. The transportation planning regulations issued in October 1993 require that metropolitan transportation planning processes be consistent with Title VI. EJ strengthens Title VI by requiring federal agencies to make achieving EJ part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

SCATS devised a process to assess the impacts of the Transportation Plan on the target populations.

Target Population

Demographic data were sought regarding target populations including minorities, low-income, minorities in poverty, and households without cars to respond to the direction of Executive Order 12898. These target populations were researched for the transportation study area of SCATS, which includes all of Stark County. The data set used to compile these statistics was the 2000 Census Transportation Planning Package (CTPP). The 2006-2010 CTPP is expected to be released in mid 2013.

SCATS used Traffic Zone data to identify target populations. Traffic Zones are the basic unit of analysis for the SCATS transportation planning process. Census tracts and block groups were both too large an area for the detailed analysis necessary. Census blocks would provide very detailed information, but some demographic information is not available at the block level.

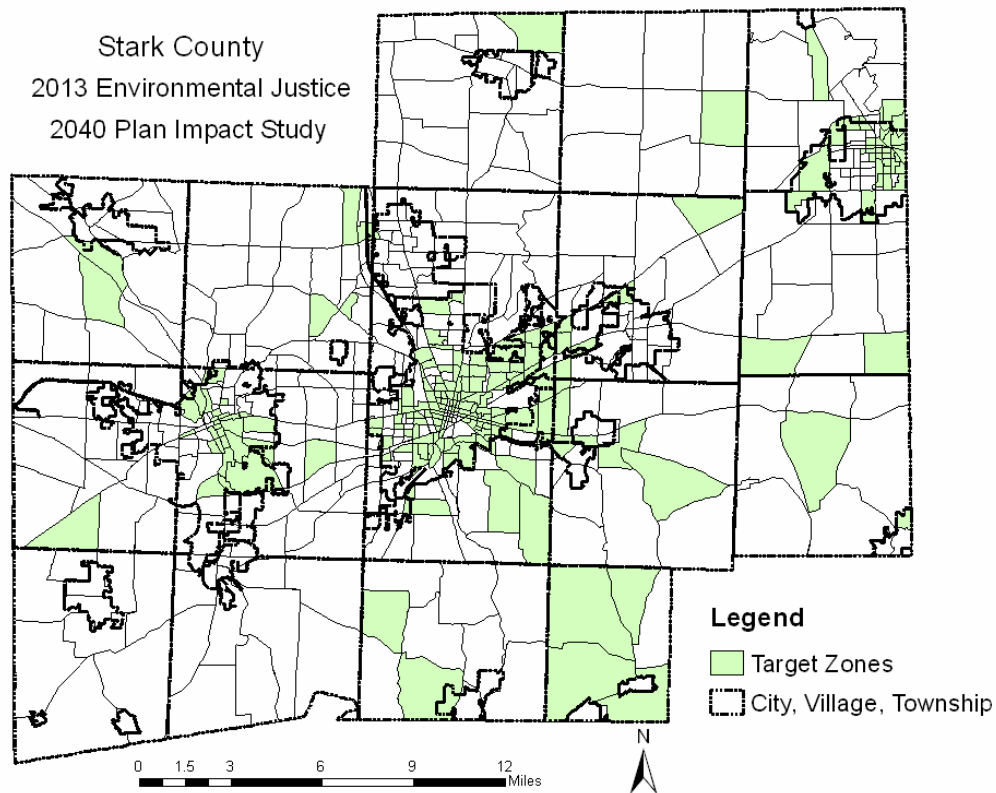
The map on the next page shows the target areas. There are 607 traffic zones in the SCATS area in the CTPP. Averages of regional totals for the various target populations were used as thresholds to identify concentrations of these populations in the study area. All Zones with minority populations greater than 12.0% of the total population or households in poverty of greater than 13% were identified as target areas. These numbers are slightly higher than the rates in the county as a whole. Two hundred seven (207) traffic zones were identified using the geographic information system (GIS).

The following table provides some statistics comparing the target zones to the total county population.

Environmental Justice Target Zones	All Zones	Minority Zones	Poverty Zones	Both Minority & Poverty	Target Zones (Either)	Per Cent of County
Number of Zones	607	151	157	101	207	34.1%
Population	378,111	81,549	75,024	56,979	99,594	26.3%
Whites	341,549	55,312	53,513	36,218	72,607	21.3%
Non-White	36,562	26,237	21,511	20,761	26,987	73.8%
Black	27,067	21,752	18,093	17,644	22,201	82.0%
Households	148,398	32,042	29,936	22,332	39,646	26.7%
Households Below Poverty	13,714	6,821	7,742	6,090	8,473	61.8%
Percent Below Poverty	9.24%	21.29%	25.86%	27.27%	21.37%	
Dwelling Units	156,896	35,503	32,777	24,813	43,467	27.7%
Zero Vehicle Households	10,399	5,391	5,420	4,436	6,375	61.3%

The target zones represent 34 % of the total number of zones in the county. They have only 26.3% of the county population but include 73.8% of the non-white population and 82 % of the black population. The target areas contain 61.8% of the households below poverty. The target areas include 61.3% of the households with no vehicles available. Zero vehicle households were initially considered in screening for target areas but were

rejected since small numbers of these households were scattered all over the county.



In examining the map, it is apparent that most of the target zones are clustered around the older cities of Canton, Massillon and Alliance. There are however a number of zones located in the more rural parts of the county. A number of targeted zones in the more suburban areas have a higher than average numbers of older adults.

Travel Time to Work

One measure of the impacts of the transportation system on target populations is how well these populations are served by the system. SCATS compiled travel times for target zones versus the county as a whole. The data came from census question “Length of your travel time to work”. The average travel time includes trips by all modes.

Travel times to work in minutes	All Zones	Target Zones
All Workers	16.56	16.17
Workers who drove alone	16.03	14.6
Workers who took transit	13.58	9.07

There is very little difference in the mean travel time to work for the county versus the targeted areas. There is greater difference for those that travel by transit. The timesaving for target zones are due, in part, to the central location of these zones. This is offset somewhat by the tendency to have more transit trips from the target areas. Therefore SCATS concludes that the transportation system serves target areas as well as it serves the non-target areas.

Impact Analysis

The executive order requires evaluation of the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but not be limited to:

- Bodily impairment, infirmity, illness or death
- Air, noise and water pollution and soil contamination
- Destruction or disruption of man-made or natural resources
- Destruction or diminution of aesthetic values
- Destruction or disruption of community cohesion
- Destruction or disruption of a community's economic vitality
- Destruction or disruption of the availability of public and private facilities and services
- Vibration
- Adverse employment effects
- Displacement of persons, businesses, farms, or non-profit organizations
- Increased traffic congestion
- Isolation
- Exclusion or separation of minority or low-income individuals within a given community or from the broader community
- The denial of, reduction in, or significant delay in the receipt of benefits

The burden on the transportation planner is to gauge the impact of the transportation program as a whole on target areas scattered across the entire region and determine whether there is disproportionate negative impacts. At the Plan stage of project development, project scopes are still being defined and there often is little information upon which to base an impact analysis.

There are however, clearly types of projects that can be expected to have the greatest impacts. Resurfacing projects, bridge replacements, signal projects, and other system preservation projects generally have few serious adverse impacts and benefits tend to accrue to the same people impacted. The projects such as new roadways, major widening projects, roadway relocations and new interchanges all may generate adverse impacts. Impacts from these projects generally fall most seriously on adjacent property, while the benefits accrue to the public at large.

SCATS concentrated on these projects in order to assess the impacts on the target areas. One characteristic these projects share is the need to acquire right of way. Therefore, SCATS identified those Plan project types which require additional right of way. These projects are listed in the table below:

NAME	TYPE	COST
I-77 & US-30 Interchange	Interchange upgrade	\$40,000,000
US-30 from Trump to SR-44	New 4-lane road	\$58,000,000
US-30 from SR-44 to SR 183	New 4-lane road	\$48,600,000
US-30 from SR-183 to East Rochester	New super 2-lane	\$4,300,000
US-62 from Market to Columbus	Major reconstruction	\$15,000,000
Harmont Interchange	New interchange	\$5,000,000
US-62 from SR-225 to Salem	New 4-lane road	\$8,000,000
Canal Fulton Connector	New 2-lane road	\$2,750,000
Sterilite Extension	New 2-lane road	\$4,000,000
Reno Extension	New 2-lane road	\$2,000,000
Edison from Cleveland to 43	Widen to 4 lanes	\$9,390,000
Frank from Fulton to University	Widen to 3 or 5 lanes	\$2,800,000
Fulton from 241 to Brunnerdale	Widen to 5 lanes	\$3,600,000
Harmont from 153 to 62	Widen to 4 lanes	\$2,800,000
Market from Applegrove to Mt Pleasant	Widen to 4 lanes	\$3,500,000
Trump from Lincoln to 153	Widen to 4 lanes	\$6,500,000
Wales from Portage to Summit County Line	Widen to 4 lanes	\$3,850,000
Wales from Hills & Dales to Portage	Widen to 4 lanes	\$8,935,000
Whipple from Applegrove to Shuffel	Widen to 5 lanes	\$3,000,000
Navarre from 21 to Sterilite	Widen to 3 lanes	\$2,000,000
Wales from 172 to Hills & Dales	Widen to 3 lanes, signals	\$4,500,000
20th & Lakeside	Intersection improvement	\$250,000
30th & Harrisburg	Intersection improvement	\$500,000
Alabama & Stanwood	Intersection improvement	\$800,000
Beech & Beechwood	Intersection improvement	\$700,000
Columbus & Paris	Intersection improvement	\$1,250,000
Lincoln Way & Main	Intersection improvement	\$1,000,000
Market & Mt Pleasant	Intersection improvement	\$1,500,000
Strausser & High Mill	Intersection improvement	\$2,000,000
236 & Strausser	Intersection improvement	\$2,000,000
Lake O'Springs & Strausser	Intersection improvement	\$1,500,000
Wales & Lake	Intersection improvement	\$1,500,000
SR-44 Bypass	New 2-lane road	\$4,500,000
Jackson from Richville to Lincoln Way	New 2-lane road	\$8,000,000
Mahoning Extension	New 2-lane road	\$3,950,000
Main St Connector from Old Main to New Main	New 2-lane connector	\$3,000,000
US 30 Connector from SR 44 to SR 172	New 2-lane connector	\$4,000,000
SR 44 & Mapleton Intersection	Intersection Improvement	\$500,000
Pittsburg - Applegrove to Shuffel	Widen to 3 lanes	\$850,000
W Maple - Ream to Main	Minor widening, new signal	\$800,000
SR 619 & McCallum	Roundabout	\$880,000
11th & Market roundabout	Roundabout	\$1,000,000

NAME	TYPE	COST
The O'Jays/Madison realignment	New road	\$3,000,000
Alabama at Orrville	Intersection Improvement	\$1,500,000
Alabama at Wooster	Intersection Improvement	\$2,000,000
Applegrove - Frank to Whipple	Widen to 5 lanes	\$7,500,000
Beech St at Oakhill	Intersection Improvement	\$2,000,000
Cleveland at State	Intersection Improvement	\$2,500,000
Cleveland at Wright	Intersection Improvement	\$2,400,000
Columbus at Beeson & Reeder	Roundabout	\$1,000,000
Easton at Bentler	Intersection Improvement	\$15,000,000
Easton at Glen Oak Entrance	Intersection Improvement	\$3,000,000
Frank from Applegrove to Shuffel	Widen to 5 lanes	\$6,000,000
Georgetown at Paris	Intersection Improvement	\$1,500,000
SR 173 State at Paris	Intersection Improvement	\$2,000,000
Perry at Harris	Intersection Improvement	\$2,000,000
SR 172 Lincoln Way at Perry	Intersection Improvement	\$3,500,000
Portage at Frank	Intersection Improvement	\$3,000,000
Portage-Mega Connector	New road	\$5,000,000
SR 241 Wales at Strausser	Intersection Improvement	\$2,000,000
Whipple from Southway to 13th SW	New road	\$8,000,000
Main & Tremont	Roundabout	\$1,500,000
SR 241 & Hills & Dales	Roundabout	\$400,000
Fohl at Dueber	Intersection Improvement	\$2,500,000
Battlesburg at Briggie	Intersection Improvement	\$2,000,000
Battlesburg at Ridge	Intersection Improvement	\$4,000,000
SR 153 at Beechwood	Intersection Improvement	\$2,500,000
Beeson at McCallum	Intersection Improvement	\$2,000,000
SR 183 at Greenbower	Intersection Improvement	\$4,000,000
SR 44 at Orchardview	Intersection Improvement	\$2,500,000
Pontius at Duquette	Intersection Improvement	\$2,000,000
SR 627 at Navarre	Intersection Improvement	\$2,500,000
Sherman Church at Haut	Intersection Improvement	\$5,000,000
US 62 at Pigeon Run/Justus	Intersection Improvement	\$7,500,000
Orion - Pittsburg to Cleveland	Widen to 3 lanes	\$4,000,000
Pittsburg at Shuffel & Orion	Ellipseabout	\$5,000,000
Portage - Pittsburg to Charlotte	Widen to 3 lanes	\$4,000,000
Shuffel - SR 241 to Frank	Widen to 3 lanes	\$3,000,000
Strausser - SR 241 to Frank	Widen to 3 lanes	\$3,000,000
Strip - Portage to Applegrove	3-lane extension	\$5,000,000
Jackson - 12th to Perry	Widen to 3 lanes	\$2,000,000
Lincoln Way	Streetscaping, widening, signals	\$7,400,000

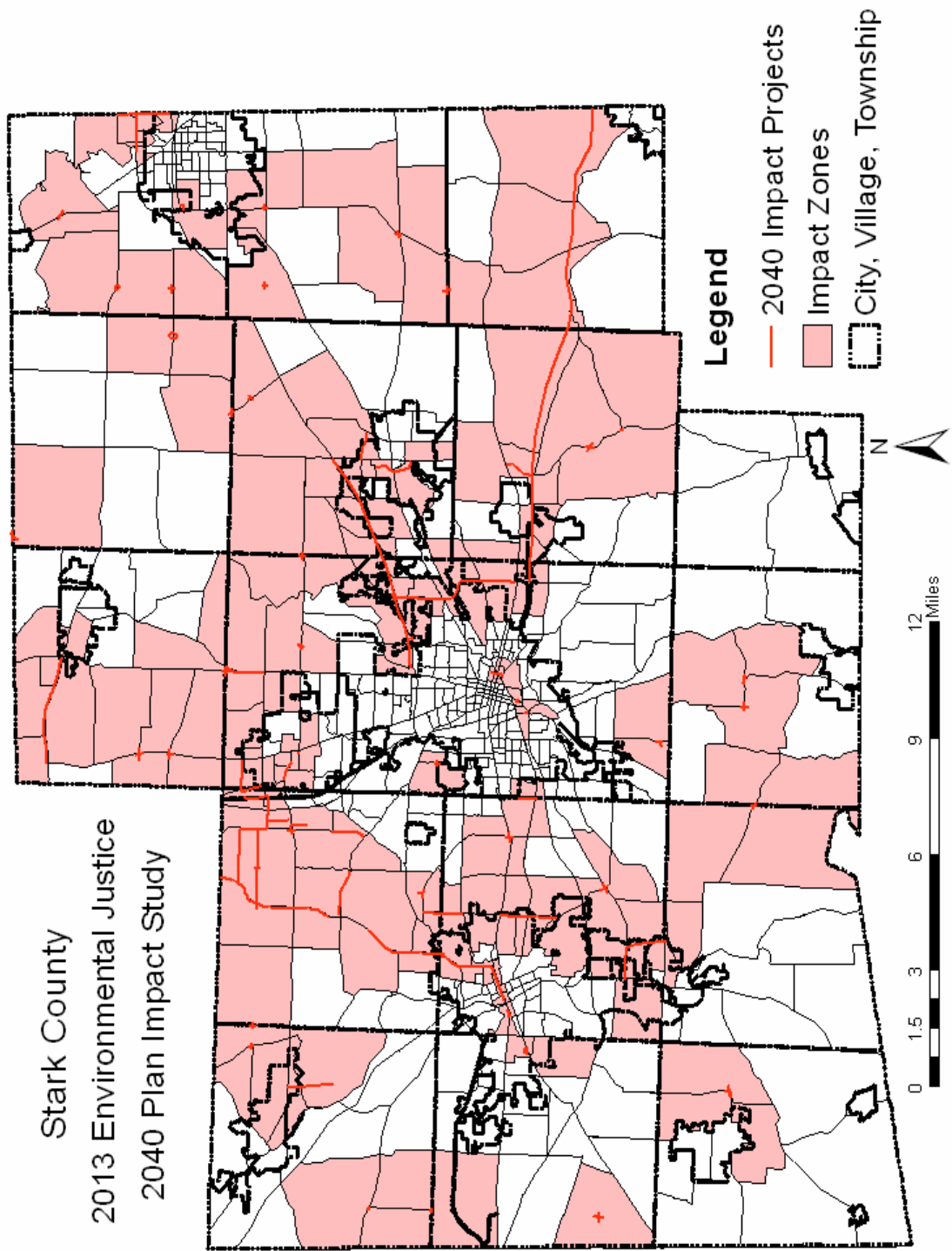
Impacted zones were then identified using GIS software. Any project within 0.05 mile of any part of an Impact Project was assumed to be an impacted zone. The map on the next

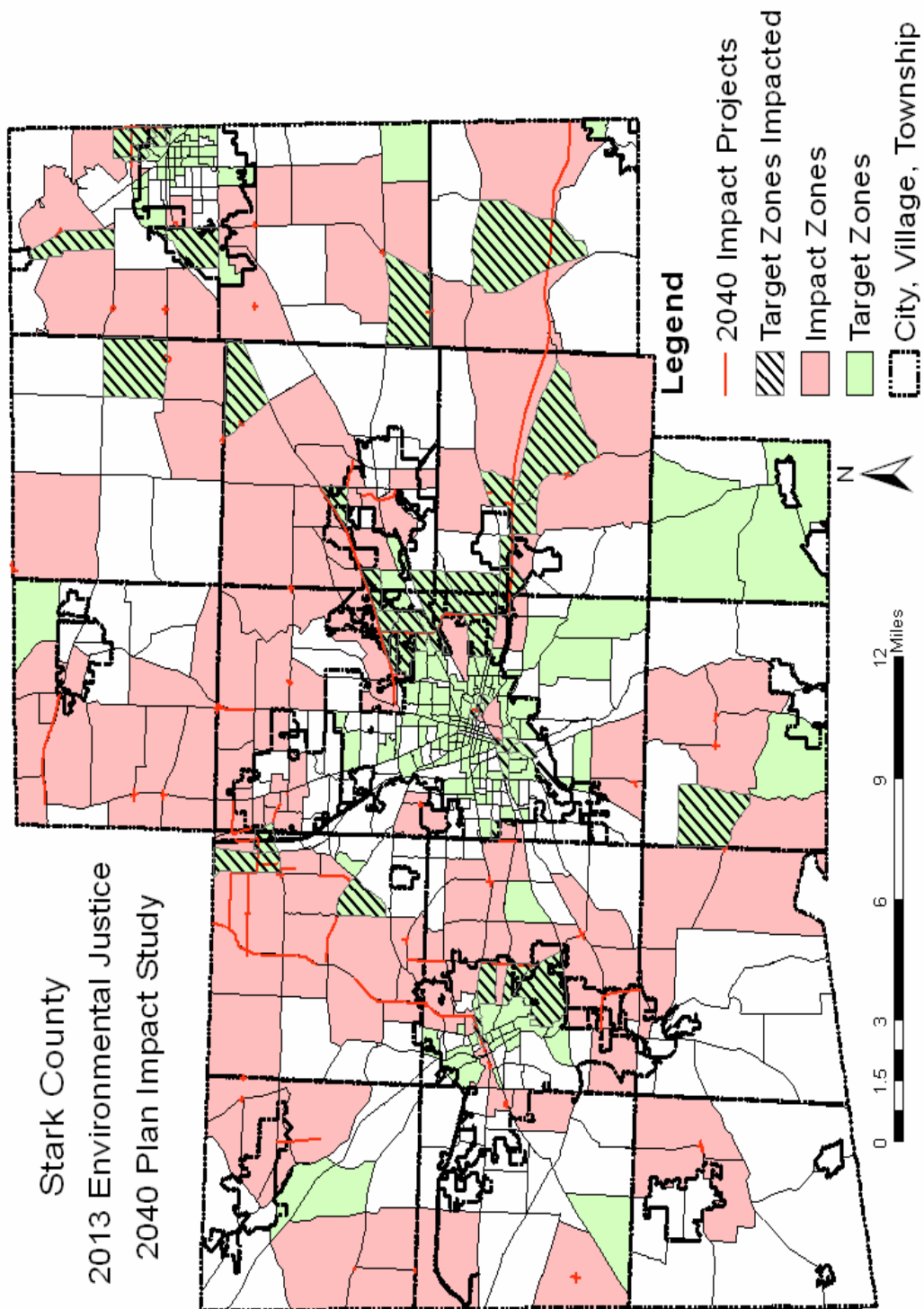
page shows the impacted zones and impact projects. One two hundred four of the 607 zones were identified as impacted zones. Of these impacted zones, 49 were target zones. The following table summarizes the economic justice analysis of The 2040 Plan highway projects.

Environmental Justice Target Zones	All Zones	All Zones %	All Impacted Zones	All Impacted Zones %	Target Zones	Target Zones Impacted	Per Cent of all zones	Per Cent of Target Zones
Zones	607		204		207	49	34%	24%
Population	378,111		170,024		99,594	23,190	45%	23%
Whites	341,549	90%	159,804	94%	72,607	17,720	47%	24%
Non-White	36,562	10%	10,220	6%	26,987	5,470	28%	20%
Black	27,067	8%	6,680	4%	22,201	4,321	25%	19%
Households	148,398		65,771		39,646	9,245	44%	23%
Households Below Poverty	13,714	9%	7,120	11%	8,473	1,700	52%	20%
Dwelling Units	156,896		68,718		43,467	9,930	44%	23%
Zero Vehicle Households	10,399	7%	2,894	4%	6,375	1,298	28%	20%

Only 24% of target zones were impacted versus 34% of all zones. The impacted zones contained a smaller percent of minority populations (20%) than total population (23%). Impact zones contained a slightly larger of households below poverty level (52%) than total households (44%).

11 % of households in impacted zones are below the poverty level compared to 9% of all zones. Only 4 % of households in impacted zones are zero vehicle households compared to 7% of all zones. In conclusion, SCATS analysis does not show any pattern of disproportionate adverse impacts on target zones or populations.





Appendix D: Environmental Mitigation, Analysis, and Consultation

Introduction

SAFETEA-LU, the Federal authorization of the surface transportation program approved in August of 2005, incorporated new requirements for consultation and environmental mitigation under 23 CFR 450.322. MPO's are required to include a discussion of potential environmental mitigation activities in transportation plans as well as consult with additional Federal, State and local land management, wildlife and regulatory agencies, and with environmental advocacy groups.

This addendum contains three sections: a discussion of environmental mitigation activities; identification of environmental resource agencies and others that will be consulted; and a discussion of projects that could potentially require environmental mitigation.

Environmental Mitigation Activities

Environmental mitigation activities are actions that serve to minimize, or compensate for, the impacts to, or disruption of, elements of the human and natural environment associated with the implementation of transportation projects. The activities can include direct actions and also strategies, policies, programs, and/or activities that can mitigate or eliminate impacts. Environmental mitigation strategies and activities can also be regional in scope, and may not necessarily address potential project-level impacts.

There are three primary types of mitigation that may be necessary to remediate impacts of transportation projects: wetland (including streams), noise, and storm water runoff.

The Ohio Department of Transportation (ODOT) has adopted project mitigation guidelines to meet requirements of the U.S. Army Corps of Engineers (USACE) and the Ohio Environmental Protection Agency (OEPA). The USACE mitigation guidelines are outlined in USACE Regulatory Guidance Letter (RGL) 02-02, dated December 24, 2002. Ohio EPA guidelines for wetland mitigation are included in the Ohio Administrative Code Sections 3745-1-50 through 3745-1-54, "The Wetland Water Quality Standards." Stream mitigation is accomplished on a case-by-case basis as required and as negotiated between the USACE, the OEPA, and the ODOT Office of Environmental Services, as formal rules have not been adopted at this time.

Wetland Mitigation

Wetlands are areas where the water table stands near, at, or above the land surface for at least part of the year and are defined according to the degree of wetness, soil condition, and vegetation supported by existing conditions. Wetlands are important elements of a watershed, providing benefits such as water retention, which lessens flooding; aquifer recharge areas that replenish drinking water supplies; wildlife habitat; and attenuation of adverse environmental conditions such as water pollution. Wetland mitigation and the

application of best management practices (BMPs) are implemented primarily to protect the functions of natural wetlands from the impacts of urban stormwater discharges and other sources of runoff or to replace wetland areas impacted by construction.

Mitigation banking is defined in the *Federal Guidance for the Establishment, Use and Operation of Mitigation Banks* (Federal Bank Guidance) (60 Federal Register 58605-58614) as "...wetland restoration, creation, enhancement, and in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for the unavoidable wetland losses in advance of development actions when such compensation cannot be achieved at the development site or would not be environmentally beneficial. It typically involves the consolidation of small, fragmented wetland mitigation projects into one large contiguous site. Units of restored, created, enhanced or preserved wetlands are defined as 'credits', which may be subsequently withdrawn to offset 'debits' incurred at a project development site."

The Wilderness Center, Inc., a 501(c) (3) nonprofit organization, operates a USACE approved mitigation bank, the Brewster Wetland Mitigation Bank, which was approved for 46.8 wetland preservation credits in May, 2004. The Brewster Wetland is located in Brewster, Ohio along Sugar Creek, within the USACE Huntington District Boundary Tuscarawas River Watershed (Hydrologic Unit Code 05040001). The wetland is a high-quality category 3 forested wetland.

The Wilderness Center, Inc. is also approved to offer stream mitigation under its in-lieu fee agreement with the U.S. Army Corps of Engineers Huntington District and the Ohio Environmental Protection Agency. The Center acquired stream frontage along the Sugar Creek in southwestern Stark County and can use this land for stream mitigation with the approval of the agencies.

Noise Mitigation

Noise mitigation is considered in freeway projects that add additional capacity, lanes or include pavement replacement with changes in materials (such as from asphalt to concrete). These projects require an investigation for potential noise level increases and may require mitigation with noise walls or other buffers if USDOT noise thresholds are exceeded.

The level of highway traffic noise is dependent upon a number of conditions including traffic volume, speed, type of vehicle, pavement material and condition, and gradient and includes a mix of tire, exhaust and engine sounds. Generally, loudness increases with heavier traffic volumes, higher speeds, and an increasing proportion of trucks to cars, changes in pavement from asphalt to concrete and increases in gradient.

Noise reduction measures can include creating buffer zones, constructing barriers, and planting vegetation. Buffer zones are undeveloped open spaces which border a highway located within areas exceeding noise limits. Noise barriers are structures built to reduce the volume of sound between the highway and impacted adjacent lands and can consist of earth mounds, vegetation, and/or vertical walls. Determining the type of mitigation, if

required, includes considering a mixture of local desires, the cost and type of material available, the right-of-way availability or acquisition cost required for the installation of the mitigation measure, and future maintenance costs. Additional factors to be taken into account include possible impacts to air circulation, ambient light conditions and the possible reflection of sound.

Storm Water Mitigation

Three major methods of storm water mitigation are generally accepted- grass swales, vegetative filter strips, and bio-retention. Post-construction storm water management in both new developments and areas being redeveloped can make use of grass swales (grassed waterways) in median and drainage ditches as a low cost means to slow water flow.

Vegetative filter strips and buffers are areas of land with vegetative cover that are designed to accept runoff from upstream development and can utilize existing land areas or be constructed to maximize water retention.

Bio-retention manages and treats storm water runoff using specific soils and vegetation in order to filter runoff stored within retention areas. This method combines physical filtering and adsorption with biological processes to maximize water retention and to treat surface runoff.

ODOT has adopted storm water mitigation policies and developed a detailed Storm Water Management Plan to ensure that BMPs are used in ODOT-sponsored projects and to meet OEPA regulations and requirements of the OEPA Statewide Construction Permit. Standard designs for BMPs can be found in the ODOT Location and Design Manual and include practices such as energy dissipaters in open ditches, storm water retention ponds as required by the Clean Water Act for construction sites over one acre, and over-wide ditches.

Environmental Resource Agencies

SAFETEA-LU emphasizes consultation with environmental resource agencies in the transportation planning process. As a result, SCATS coordinates with a number of Federal, State, and local land use management, natural resources, environmental protection, conservation, historic preservation, advocacy groups and other regulatory agencies.

Those in the following list have been identified as agencies dealing primarily with natural and other environmental conditions and are notified of the availability of the draft Transportation Improvement Program (TIP) and the Transportation Plan. These agencies and others are encouraged to review the TIP and Transportation Plan and comment to SCATS on any potential environmental impacts that may result from the projects and to provide comments and recommendations for these documents.

Environmental Agencies, Regulatory Agencies, Advocacy Groups and Other Parties Contact List

FEDERAL AGENCIES

Federal Highway Administration
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Columbus, OH 43215-2408
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Huntington District
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Huntington, WV 25701-2070
public.affairs@lrh01.usace.army.mil

U.S. Department of Agriculture
**Natural Resources Conservation
Service**
Massillon Service Center
2650 Richville Dr. SE, Suite 103
Massillon, OH 44646
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U.S. Environmental Protection
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US Fish and Wildlife Service
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U.S. Fish & Wildlife Service
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U.S. Geological Survey
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Columbus, OH 43229-1111
dc_oh@usgs.gov

U.S. National Park Service
Midwest Regional Office
601 Riverfront Drive
Omaha, NE 68102
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STATE AGENCIES

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**ODNR Division of Soil and Water
Resources - Floodplain
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**ODNR Division of Mineral Resources
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Northeast Region Office

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ODOT Scenic Byway Coordinator

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Ohio Historic Preservation Office

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REGIONAL/COUNTY AGENCIES

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Stark County Health Department

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Stark County Park District

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Robert Fonte, Director
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Stark County Sanitary Engineer

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Stark County Subdivision Engineer

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**Stark Soil & Water Conservation
District**

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UTILITY AGENCIES

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Don Snyder

SBC

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Doug Culp

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Dave Gulyas

Dominion East Ohio

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Ohio Edison Company Eastern Region Engineering

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Ohio Edison Company Central Division Engineering

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ADVOCACY GROUPS, ETC.

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Buckeye Trail Association, Massillon Trail Section

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Ohio & Erie Canalway Coalition

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Rails-to-Trails Conservancy Midwest Regional Office

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Wilderness Center, Inc.

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Wilmot, OH 44689-0202
Gordon Maupin, Executive Director
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Stark County Bicycle Club

Stark County Bicycle Club
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bikescbc@bikescbc.com

Folks on Spokes

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Ohio Bicycle Federation

P.O. Box 69

Vandalia OH 45377

chuck@ohiobike.org**Hilltop Hikers**

PO BOX 36802

Canton, OH 44735

Potential Environmental Impacts of Projects

Projects listed in the Transportation Improvement Program (TIP) and the Transportation Plan that will acquire additional rights-of way have been reviewed for potential impacts on eight environmental conditions. Projects range from those having the potential of major impacts, such as building new roads or freeway interchanges, to those having minimal potential impacts, such as intersection improvements. Repaving and rebuilding projects, including replacing bridges, were not reviewed. ODOT Technical services assisted in providing data layers for use with the Geographic Information System. This data was then reviewed for proximity to proposed projects. The environmental conditions reviewed were:

- Threatened and Endangered Species, including State and Federally listed threatened or endangered species of plants, animals, and insects, etc. Only location data was provided by ODOT/ODNR in order to protect species from possible collection, capture, or hunting. A 1,000' buffer range was used to review this category.
- Potential Indiana Bat Habitat- identification of "primary" high quality potential Indiana Bat habitat, according to forest types; proximity to water, other forested areas and parkland or conservation areas. There have been no "captures" or identification of Indiana Bats within Stark County or within their 5 miles designated habitat/foraging zone. Thus, typical actions required to fulfill NEPA requirements, unless an area is identified as a potential high quality habitat, is the cutting of trees outside of the possible habitation and nesting period (tree removal between September 15 and April 15). Projects were reviewed at a 100' buffer for woodland areas.
- National Register Sites and Districts as identified by the Ohio Historic Preservation Office (OHPO) and national Park Service. A 1,000' buffer is used to identify historic structures and districts. SCATS no longer has the ability to review archeological resources since the OHPO altered their online mapping to a subscription service. However, ODOT's review of projects includes an archeological review in order to fulfill NEPA requirements.
- USEPA Superfund Sites as identified from the USEPA CERCLIS listing. A 1,000' buffer range was used to review this category.
- 100-Year Flood Plain as determined by FEMA Flood layer converted to GIS by ODNR. Projects were listed if they intersect the 100-year flood plain.
- Reservoirs and Lakes. Projects were listed if they fall within a 500' buffer of a lake or reservoir.
- Impacted Streams, i.e. those exceeding established Total Maximum Daily Loads set by the OEPA and identified by 11 digit Hydrologic Unit Code and ID code. All listed rivers and perennial streams are identified in this category. OEPA has not established limits and impacted areas at this time,

thus all projects intersecting or within 500' of streams and rivers are identified.

- Wetland and Woody Wetland Areas as identified by ODNR and USFWS. Projects were listed they fall within a 100' buffer.
- Parklands and Conservation Lands such as metropolitan, city, and township parks; state parks, state managed wildlife areas, privately held conservation areas, other open space areas, etc. These locations have been identified by ODNR, SCRPC, and other local governmental agencies within Stark County. A 500' buffer was used for this review.

It should be noted that there are no identified wild, scenic, or recreational rivers in Stark County, thus this category was not reviewed. Only a small portion of the Mahoning River within Stark County is eligible for designation as a wild, scenic or recreational river.

Projects identified as having potential impacts are shown in Table 1, with the exception of potential Indiana Bat habitat. Almost all of the projects fall within a 100' buffer of a woodland area (62 out of 78 projects) and can be assumed to require remediation if exfoliating bark trees are present.

TABLE 1: Projects Having a Possible Impact		Possible Impact Category							
Project Name	Type of Project	Endangered/Threatened Species	National Register Listed Sites	EPA Superfund Sites	Floodplain	Reservoirs and Lakes	Perennial Streams/Rivers	Wetland and Woody Wetland	Parks and Natural Areas
12th & Market	Intersection Imp.		x						
12th Bridge	2-Lane Imp.				x	x	x	x	x
12th-Monument to Maple	2-Lane Imp.		x		x	x	x	x	x
20th NW & Lakeside	Intersection Imp.	x				x	x		
30th NE & Harrisburg	Intersection Imp.								
Alabama & Stanwood	Intersection Imp.					x	x		
Applegrove realignment	New road						x		
Applegrove-Frank to Whipple	Widen to 5 lanes		x		x		x	x	
Beach & Beechwood	Intersection Imp.					x	x	x	
Beeson & Freshley	Intersection Imp.				x	x	x		
Canal Fulton Connector	New road					x	x	x	
Cherry & Locust	Intersection Imp.		x						
Cleveland-45th to Mill	Widen to 3 lanes							x	
Columbus, Beeson & Reeder	Roundabouts								

TABLE 1: Projects Having a Possible Impact		Possible Impact Category							
Project Name	Type of Project	Endangered/Threatened Species	National Register Listed Sites	EPA Superfund Sites	Floodplain	Reservoirs and Lakes	Perennial Streams/Rivers	Wetland and Woody Wetland	Parks and Natural Areas
Edison-Cleveland to SR-43	Widen to 4 lanes					x	x	x	
Fohl & Shepler Church	Intersection Imp.								
Fohl-Navarre to I-77	2-Lane Imp.					x	x		x
Frank-Fulton to University	Widen to 5 lanes					x		x	
Frank- Applegrove to Shuffel	Widen to 5 lanes					x		x	
Fulton-Wales to Brunnerdale	Widen to 5 lanes					x	x	x	
Hankins-Wales to Louisa Marie	2-Lane Imp.				x	x	x	x	
Harmont-SR-153 to US-62	Widen to 4 lanes								
I-77 & US-30 Interchange	Inter. Upgrade				x		x		
Jackson-12 th to Perry	Widen to 3 lanes				x		x		
Jackson-Richville to Lincoln Way	2-Lane Imp.	x					x	x	
Jackson-Richville to Lincoln Way	New road	x					x	x	
Lincoln Way & Main	Intersection Imp.							x	
Mahoning-Patterson to Armour	2-Lane Imp.				x	x	x	x	
Mahoning-Patterson to Armour	New road				x	x	x	x	
Main & Tremont	Intersection Imp.								
Main St Connector	New road					x	x	x	
Market & Mt Pleasant	Intersection Imp.					x	x	x	
Market-55th to Applegrove	Widen to 4 lanes		x					x	
Market-Applegrove to Mt Pleasant	Widen to 4 lanes		x			x	x	x	
Navarre-SR-21 to Sterilite	Widen to 3 lanes						x		
Pittsburg-Applegrove to Shuffel	Widen to 3 lanes					x			
Ravenna & Mapleton	Intersection Imp.						x		
Reno Extension	New road								
Richville-Nave to Southway	2-Lane Imp.								
SR-44 Bypass	New road		x	x	x	x	x	x	
SR-44 Bypass	2-Lane Imp.		x	x	x	x	x	x	
SR-619 & McCallum	Roundabout					x	x		
Sterilite Extension	New road						x	x	x
Strausser & High Mill	Intersection Imp.					x	x		
Strausser & Lake O'Springs	Intersection Imp.							x	
Strausser & SR-236	Intersection Imp.							x	
Trump-Lincoln Way to SR-153	Widen to 4 lanes				x		x	x	
Trump-SR-43 to New US-30	New road						x	x	
Trump-SR-43 to New US-30	2-Lane Imp.						x	x	

TABLE 1: Projects Having a Possible Impact		Possible Impact Category							
Project Name	Type of Project	Endangered/Threatened Species	National Register Listed Sites	EPA Superfund Sites	Floodplain	Reservoirs and Lakes	Perennial Streams/Rivers	Wetland and Woody Wetland	Parks and Natural Areas
US-30 Connector-SR-44 to Miday	New road					x			
US-30-SR-183 to East Rochester	New road			x	x	x	x		
US-30-SR-44 to SR-183	New road			x	x	x	x	x	
US-30-Trump to SR-44	New road		x	x	x	x		x	
US-62 at Harmont	New road								
US-62-Market to Columbus	New road				x		x		
US-62-SR-225 to Salem	New road				x		x	x	x
Wales & Lake	Intersection Imp.								
Wales-Hills & Dales to Portage	Widen to 4 lanes					x	x	x	x
Wales-Lincoln Way to Hills & Dales	Widen to 3 lanes					x	x	x	
Wales-Portage to Summit County	Widen to 4 lanes					x	x	x	
Walnut-Southway to 16th	2-Lane Imp.								
Waynesburg-17th to US-30	Widen to 3 lanes			x				x	
Werner Church Realignment	New road				x		x		
Whipple-Applegrove to Shuffel	Widen to 5 lanes				x		x	x	
Whipple-Southway to 13th	2-Lane Imp.					x		x	
Whipple-Southway to 13th	New road					x		x	
Columbus & Paris	Intersection Imp.								
SR-44 & Mapleton	Intersection Imp.								
11 th & Market	Intersection Imp.								
The O'Jays/Madison realignment	New road								x
Alabama at Orrville	Intersection Imp.								
Alabama at Wooster	Intersection Imp.								
Applegrove - Frank to Whipple	Widen to 5 lanes				x		x		
Beech St at Oakhill	Intersection Imp.								
Cleveland at State	Intersection Imp.		x						
Cleveland at Wright	Intersection Imp.								
Columbus at Beeson & Reeder	Roundabout								
Easton at Bentler	Intersection Imp.								x
Easton at Glen Oak Entrance	Intersection Imp.								x
Frank from Applegrove to Shuffel	Widen to 5 lanes						x		x
Georgetown at Paris	Intersection Imp.								
SR 173 State at Paris	Intersection Imp.								x
Perry at Harris	Intersection Imp.								
SR 172 Lincoln Way at Perry	Intersection Imp.								

TABLE 1: Projects Having a Possible Impact		Possible Impact Category							
Project Name	Type of Project	Endangered/Threatened Species	National Register Listed Sites	EPA Superfund Sites	Floodplain	Reservoirs and Lakes	Perennial Streams/Rivers	Wetland and Woody Wetland	Parks and Natural Areas
Portage at Frank	Intersection Imp.							x	x
Portage-Mega Connector	New road							x	
SR 241 Wales at Strausser	Intersection Imp.							x	
Whipple from Southway to 13th SW	New road					x		x	
Main & Tremont	Roundabout								
SR 241 & Hills & Dales	Roundabout								
Fohl at Dueber	Intersection Imp.							x	
Battlesburg at Briggie	Intersection Imp.								
Battlesburg at Ridge	Intersection Imp.								
SR 153 at Beechwood	Intersection Imp.								
Beeson at McCallum	Intersection Imp.		x				x		
SR 183 at Greenbower	Intersection Imp.				x	x		x	x
SR 44 at Orchardview	Intersection Imp.								
Pontius at Duquette	Intersection Imp.								x
SR 627 at Navarre	Intersection Imp.								
Sherman Church at Haut	Intersection Imp.								x
US 62 at Pigeon Run/Justus	Intersection Imp.							x	x
Orion - Pittsburg to Cleveland	Widen to 3 lanes							x	x
Pittsburg at Shuffel & Orion	Ellipseabout								
Portage - Pittsburg to Charlotte	Widen to 3 lanes								x
Shuffel - SR 241 to Frank	Widen to 3 lanes					x		x	x
Strausser - SR 241 to Frank	Widen to 3 lanes						x	x	x
Strip - Portage to Applegrove	3-lane extension						x	x	
Jackson - 12th to Perry	Widen to 3 lanes				x		x	x	x
Lincoln Way	Streetscape, widen, signals								
COLUMN TOTAL	109	3	11	6	22	35	47	50	21

While most impacts can be properly mitigated by ordinary measures, others cannot, or might require corrective measures requiring more than ordinary measures.

The following discussions highlight findings by using the described buffers, projects, and GIS processing. Seven maps are included showing the impact categories reviewed.

Endangered Species

Only one project, *Jackson-Richville to Lincoln Way* near Massillon, directly impacts an area identified by ODOT/ODNR as an area with an endangered species, area 212. Most other projects are either at the extreme range of the buffer, or are in an area that has subsequently undergone private development.

Historic Properties and Districts

No historical properties are within areas likely to be affected by projects requiring additional right-of-way.

Superfund Sites

A number of projects are near areas identified as USEPA Superfund sites. The *SR-44 Bypass* in Louisville is near Ohio Transformer Corp., *US-30/SR-183 to Rochester* is near the TRW Minerva plant, and *US-30 Trump to SR-44* is near Crescent Brick in Osnaburg Township.

Additional information on these sites can be found at the USEPA Superfund website search tool at <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>.

2040 Projects with Possible Environmental Impacts:

Reservoirs, Lakes,
Rivers and Creeks

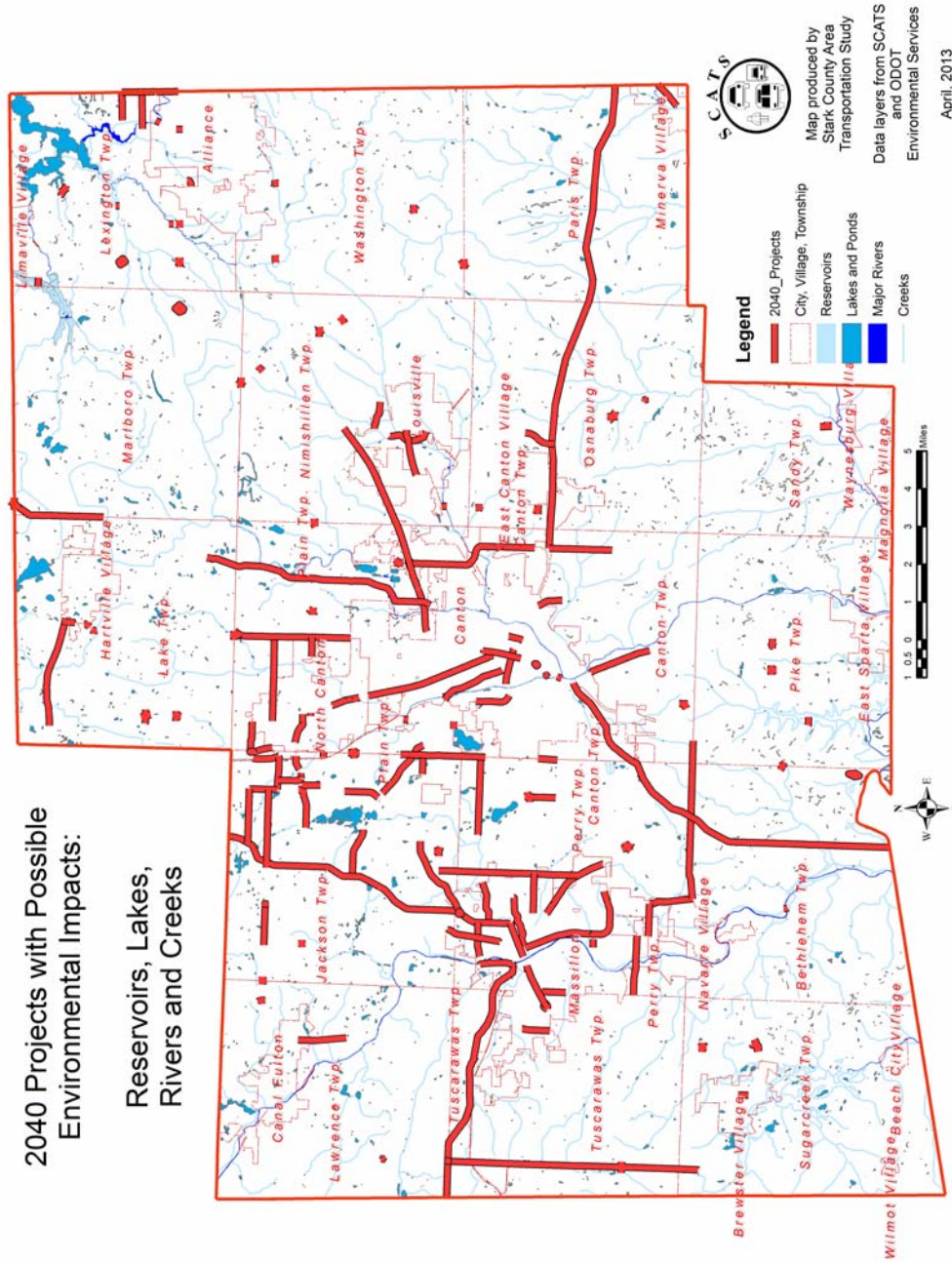
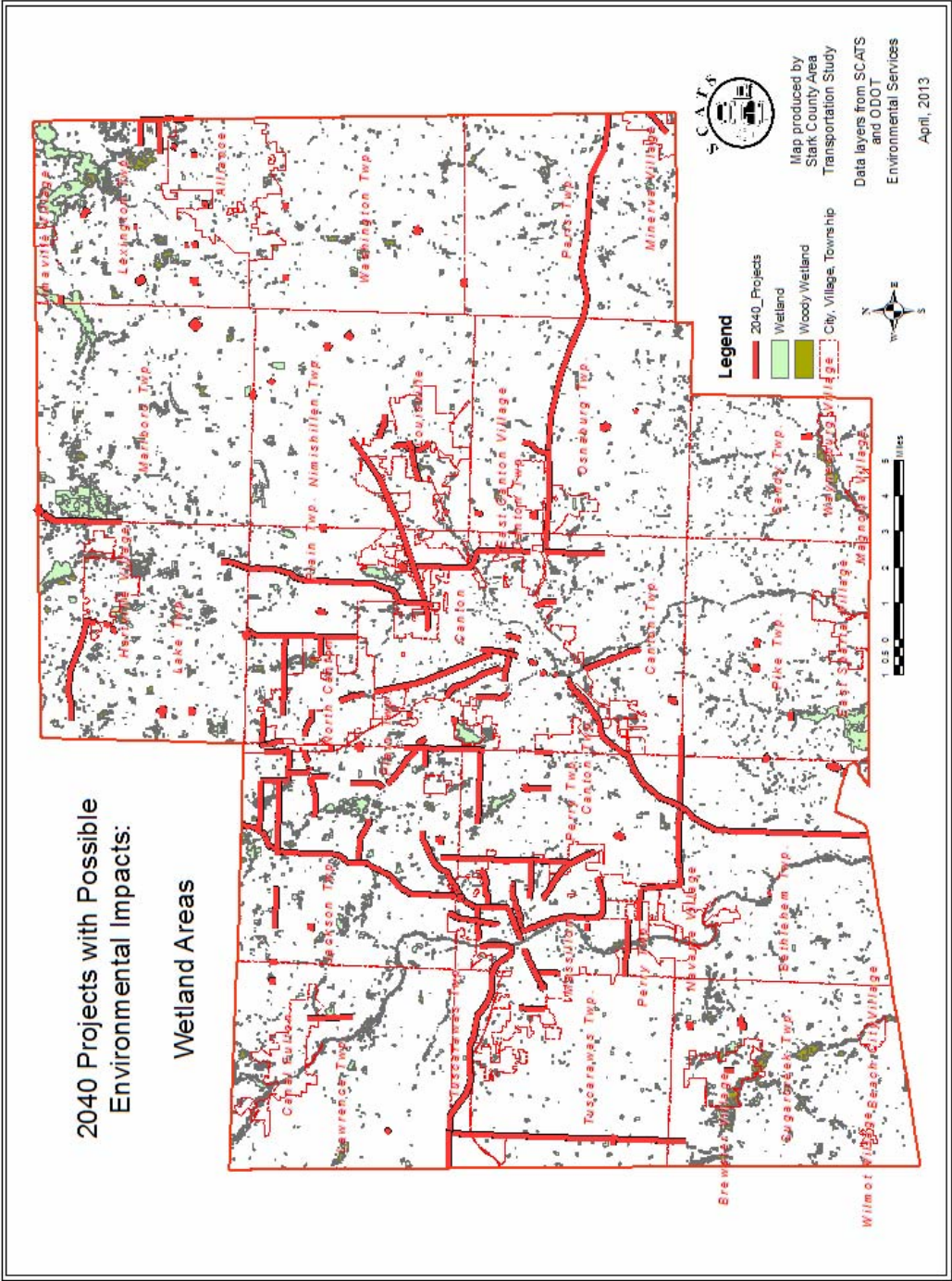


Figure 1 Impact Map of River & Lakes



2040 Projects with Possible Environmental Impacts:

Threatened and Endangered Species

Legend

- 2040 Projects
- Threatened and Endangered Species
- City, Village, Township

Map produced by Stark County Area Transportation Study

Data layers from SCATS and ODOT Environmental Services

Scale: 0 1 2 3 4 Miles

North Arrow

Map Labels: Capital Fullerton, Lawrence Twp., Jackson Twp., Plain Twp., North Canton, Canton, East Canton Village, East Canton Twp., Canton Twp., Oshtemo Twp., Minerva Village, Washington Twp., Lexington Twp., Alliance, Marlboro Twp., Lake Twp., Hartsville Village, Sandy Twp., Wayne Twp., Magnolia Village, East Sparta Village, Pike Twp., Canton Twp., Perry Twp., Tuscarawas Twp., Tuscarawas Village, Navajo Village, Bethlehem Twp., Sugar Creek Twp., Wilmet Village, Beach City Village.

Figure 3 Impact map of Threatened and Endangered Species

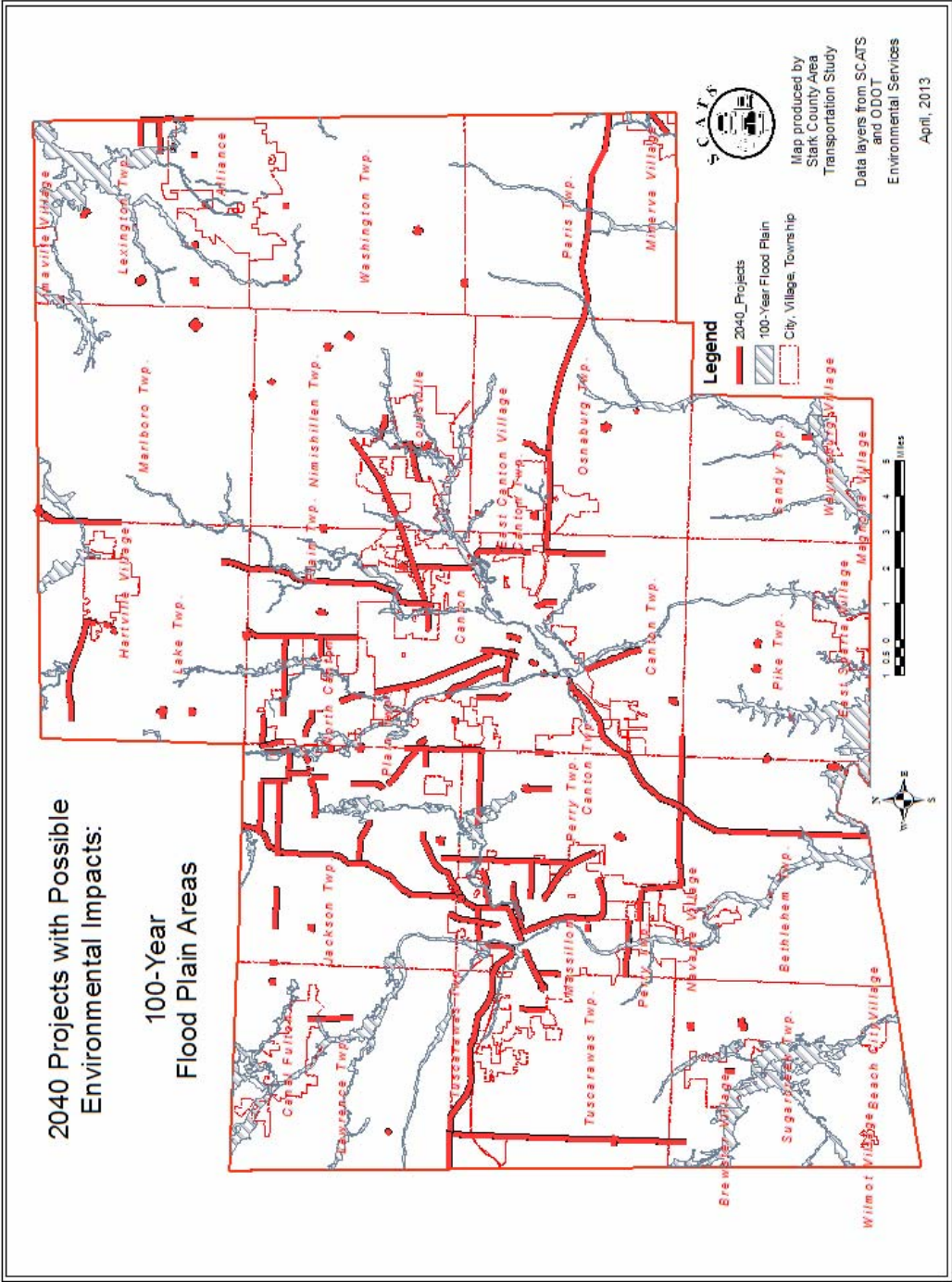
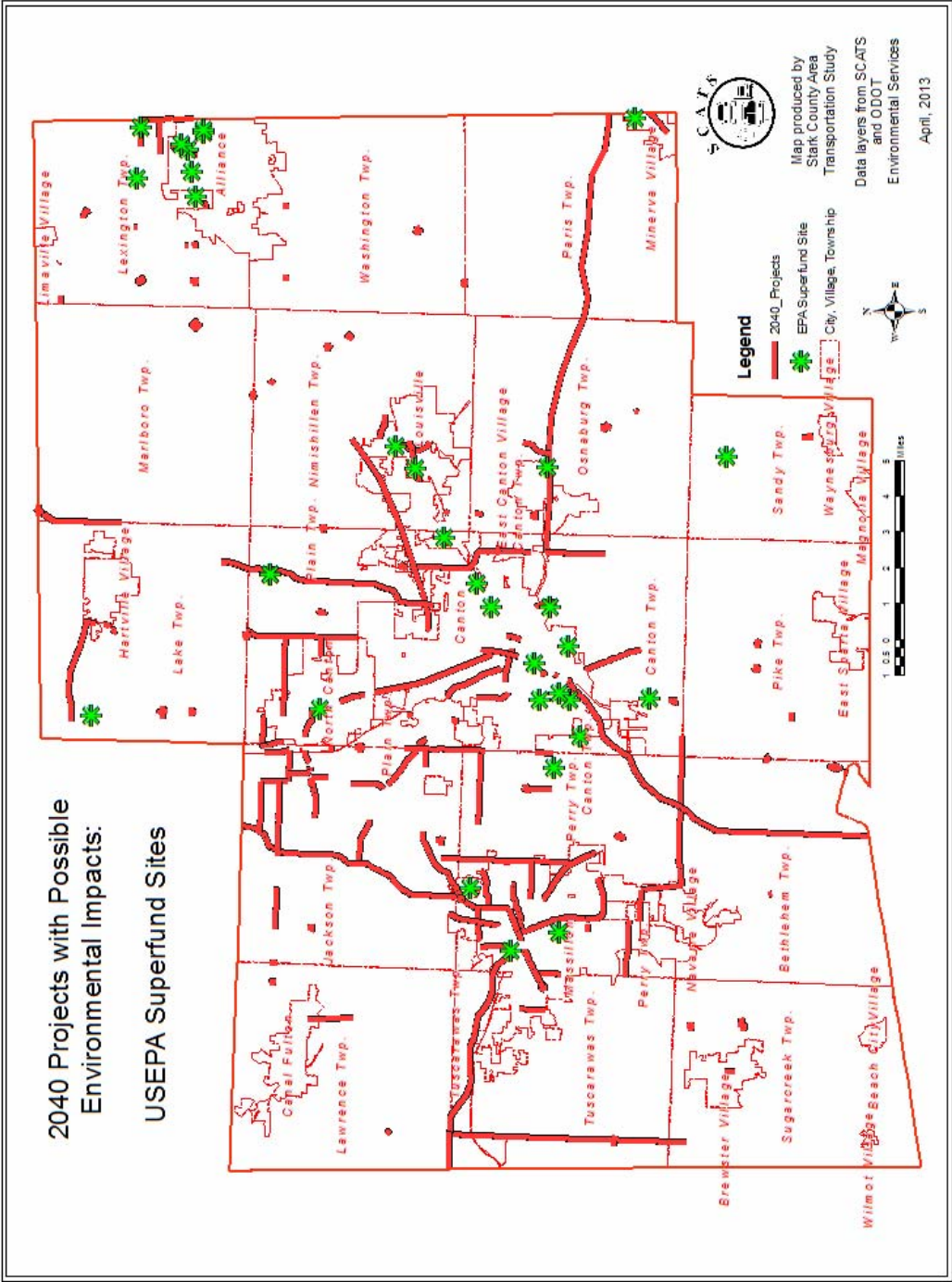


Figure 4 Impact Map of 100-Year Flood Plain



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Figure 6 Impact Map of Historic Districts and Properties

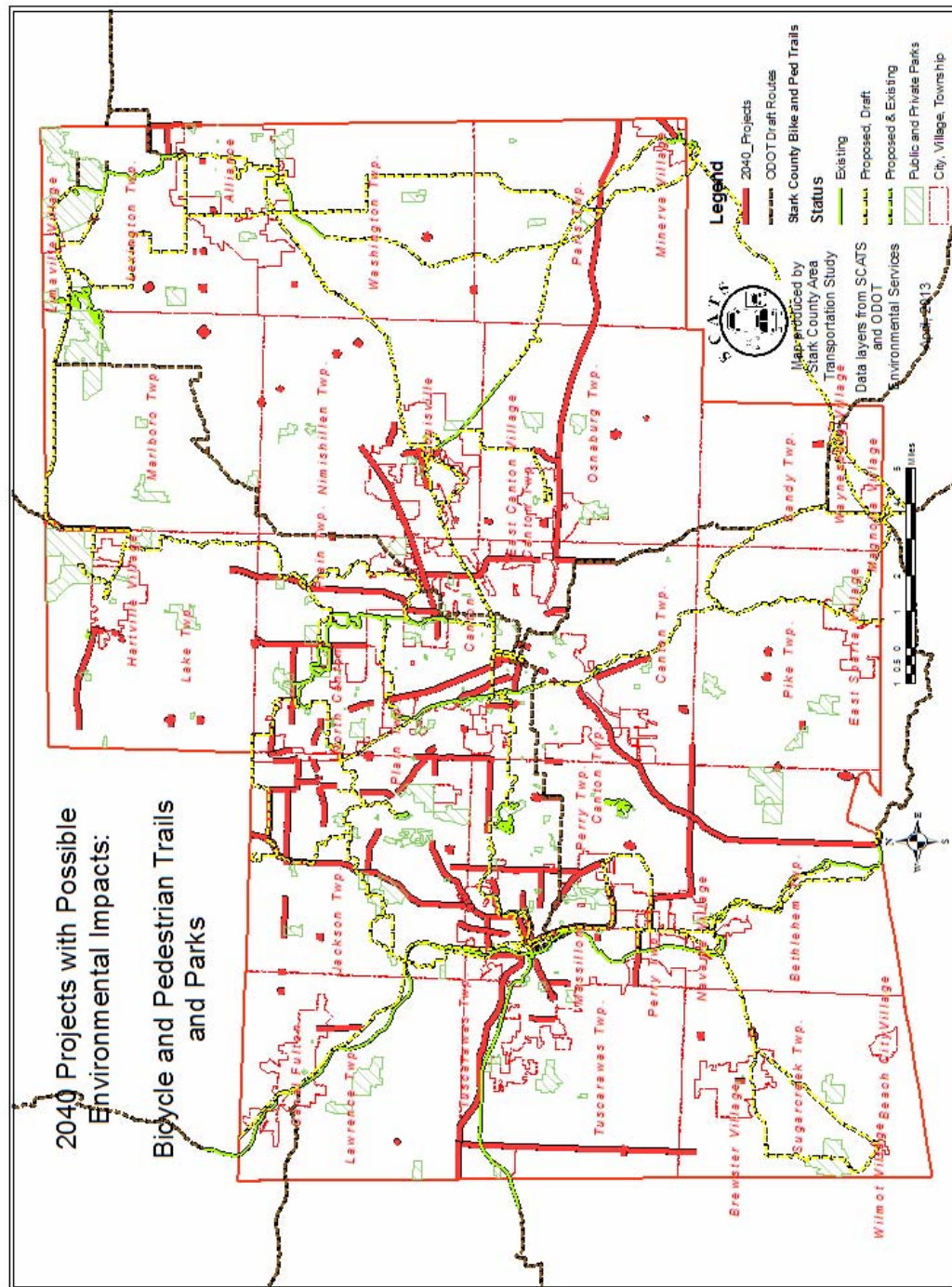


Figure 7 Impact Map of Parks and Trails

Appendix E: Policy Committee Adoption Resolution

SCATS RESOLUTION 2013-11

Adoption of 2040 Transportation Plan

RESOLUTION OF THE POLICY COMMITTEE OF THE STARK COUNTY AREA TRANSPORTATION STUDY - ADOPTION OF THE YEAR 2040 TRANSPORTATION PLAN

WHEREAS, the Policy Committee of the Stark County Area Transportation Study is designated as the Metropolitan Planning Organization (MPO) by the Governor acting through the Ohio Department of Transportation (ODOT) and in cooperation with locally elected officials in the Canton, Ohio urbanized area as evidenced in the Agreement of Cooperation between ODOT and the Stark County Regional Planning Commission, encompassing Stark County; and

WHEREAS, the Moving Ahead for Progress in the 21st Century (MAP-21) requires the development of a Long-Range Transportation Plan, and

WHEREAS, this Committee has reviewed the 2040 Transportation Plan document and found that the recommendations contained therein function together to form an integrated metropolitan transportation system, take into account the planning considerations specified in MAP-21, and are consistent with regional transportation goals and objectives, and

WHEREAS, a financial plan has been prepared and included in the document which demonstrates that the 2040 Transportation Plan can be implemented in a fiscally sound manner, in accordance with the financial resources from public and private sources that can be reasonably expected to be made available between now and 2040, and

WHEREAS, the 2040 Transportation Plan assesses capital investment and other measures necessary to ensure the preservation of the existing metropolitan transportation system, and has been found to make the most efficient use of existing transportation facilities to relieve vehicular congestion and maximize the mobility of people and goods in and through the region, and

WHEREAS, the Clean Air Act Amendments of 1990 require that SCATS make a determination, in cooperation with ODOT, that the 2040 Transportation Plan is in conformity with respect to Ohio's State Implementation Plan for attainment of the National Ambient Air Quality Standards (NAAQS) within the Canton, Ohio (Stark County) Ozone Maintenance Area and PM_{2.5} Non-Attainment Area, and

WHEREAS, a quantitative air quality analysis of the 2040 Transportation Plan has been completed in accordance with the requirements specified in MAP-21 and the Clean Air Act Amendments of 1990, and

WHEREAS, an Environmental Justice scan has been completed, in order to ensure that low-income and minority population groups will not disproportionately bear the negative environmental consequences of implementing the projects recommended in the regional transportation plan, and

WHEREAS, various public agencies, local officials, private providers of transportation, members of the public, and area media outlets were notified that the 2040 Transportation Plan was available for review at the SCATS office and posted on the SCATS web site; and that public involvement meetings were held to provide the general public with the opportunity to comment on the draft 2040 Transportation Plan, and

WHEREAS, SCATS maintains a regional Intelligent Transportation Systems (ITS) architecture; a regionally developed framework that ensures institutional agreement, technical integration, and functional interoperability among the ITS projects that are planned, programmed, and implemented in Stark County.

NOW THEREFORE BE IT RESOLVED:

1. That this Committee adopts the 2040 Transportation Plan as the long-range transportation plan for the SCATS area and affirms its consistency with the State Implementation Plan.
2. That this Committee recommends that its members incorporate these improvements into their respective transportation plans and pursue the funding necessary for project implementation.
3. That this Committee approves the 2040 Transportation Plan document.
4. That this Committee considers that the process used to develop the transportation plan has adequately provided for participation by local officials and members of the general public.
5. That this Committee affirms that the recommendations included in the 2040 Transportation Plan are able to be implemented within the constraints established by the financial forecast contained in the Plan document.
6. That this Committee authorizes the Staff to provide copies of this Resolution to the appropriate agencies as evidence of action by the Metropolitan Planning Organization.



Keith Bennett, Chair – SCATS Policy Committee

5/20/2013

Date